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BESTWALL GYPSUM DIVISION

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GEORGIA-PACIFIC

guide to gypsum products for WALL SYSTEMS



lath & plaster walls / section **1**

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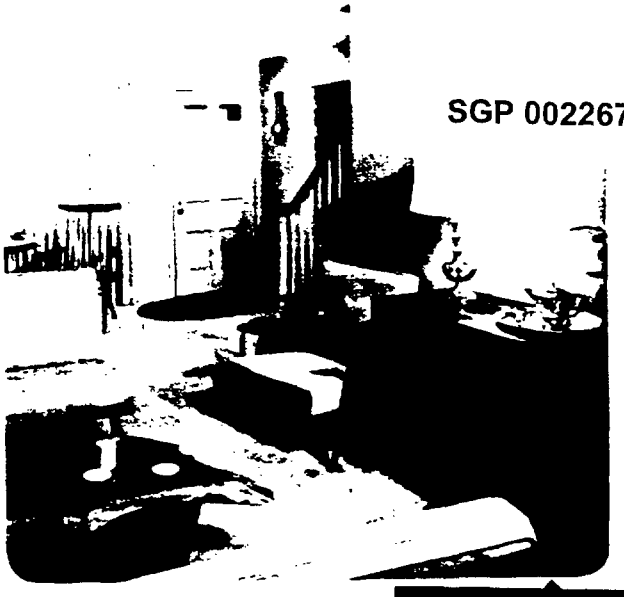


wallboard walls

PLAINTIFF'S EXHIBIT

GP-1498

G-P/BESTWALL

Advantages of the lath and plaster wall systems

For over half a century G-P/Bestwall gypsum building materials have been accepted as a standard of quality everywhere. This recognition has and will continue to be earned through continued creative research which provides such unique advantages as glass fibre reinforced gypsum plaster and laths.

The choice between the lath and plaster systems and the wallboard systems of construction rests with you the architect or construction engineer. There are advantages to either method. Among the lath and plaster system advantages is the wide choice of lath materials available. Another is the versatility afforded with the use of lath clips. Finally of course is the excellent selection of plasters available.

The following fourteen pages deal with this system of construction. For further information and free consultation write directly to the G-P, Bestwall Gypsum Division, or consult nearest district office listed on the back cover of this catalog.



G-P/Bestwall lath and plaster construction is lightweight, easily handled and versatile. All of which makes it quite simple to install under almost any conditions.

The fiber glass content of G-P/Bestwall Fibered Plasters provides better keying on metal or gypsum lath. A better surface is made for reception of the finish coat. Also, the plaster spreads freely and provides high coverage.

When applied in accordance with specifications, G-P/Bestwall plasters provide uniformly strong, stable walls. G-P/Bestwall sets evenly and uniformly to maximum hardness and strength. Under normal conditions of service, the plaster will last for the life of the building.

The textile glass filaments present in G-P/Bestwall laths and plasters weigh only 1/150 to 1/200 as much as most manila or sisal fibers, yet they are as strong as high strength steel of the same size.

Gypsum products are incombustible. They will not burn. The water crystallization in both the lath and the plaster acts as an "automatic" sprinkler system.

Gypsum products have been used for fire protection between occupancies and over structural building materials for years. Gypsum, in some form or other, has been included in over 90% of the assemblies which have been fire tested at Underwriters Laboratories, National Bureau of Standards and other testing facilities.

Cover Photograph
Mansion House Center
St. Louis, Mo

SGP 0022679

For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling

G-P/BESTWALL EXCLUSIVE

Glass fiber reinforcement

Fast one coat application









G-P/Bestwall laths and plasters, although always consistently a superior product, have one unique and important additive which makes them very much in demand. This is the addition of uniform length, high strength glass filament fibers. The fiber glass content of G-P/Bestwall fibered plasters and laths is an important factor to consider in specifying lath and plaster construction.

Literally miles of glass fibers (19.75 miles per bag of fibered plaster) offer greater resilience and bonding properties that resolve many job difficulties. Glass fiber reinforcement provides greater speed in application which in turn results in better economy.

Durability in construction (the fibers act as a reinforcement within both the lath and plaster). And, not the least of importance, high quality plastering because of the added plasticity of the plaster.

G-P/Bestwall plasters, designed for machine application, give greater construction economies and added design possibilities. Glass fibered plaster may be used when fibered plaster is specified. Due to the plasticity and richness of these plasters they will not clog the mixer, hose or nozzle. Even the glass fibers go through.

G-P/Bestwall Pinholath, because of its uniquely punctured surface, provides an excellent base for a variety of machine applied plaster.

Dens-Cote (One-Coat) System although Dens-Cote Smooth Finish (or Textured Finish) is designed to be used over Dens-Cote Gypsum Base, it works equally as well over porous masonry block.

Fire Resistance – Dens-Cote Firestop Gypsum Base may be applied to wood, metal or gypsum studs. Up to 3-hour Fire Resistance assemblies are available.

Easy to Decorate—Dens-Cote One Coat System receives any decoration.

Fast Erection—Finish today, decorate tomorrow.

Dens-Cote System (one and two coat systems) is designed for use whenever a strong durable finish with maximum speed and minimum material is desired. One application of only $^{3}/_{32}$" minimum thickness Dens-Cote Smooth Finish (or Textured Finish) over glass fiber reinforced Dens-Cote Gypsum base, is all that is needed to give lasting strength and beauty to any construction. For special construction specification details see Product Sheet GP-66205.

This system is designed for those who prefer the conventional finishes but desire modern speed and minimum material. The specially designed Dens-Cote Base Plaster, stronger than conventional sanded plasters, may be applied as thin as $^{1}/_{16}$" over Dens-Cote Base, to achieve the best results, as in the one coat system, the Dens-Cote Base Plaster can also be used over porous masonry block with excellent results.

After the first coat of Dens-Cote Base Plaster has set, finish with lime putty and gauging for a conventional smooth finish, or use any sand float textured finish. For a hard durable smooth finish, use Dens-Cote Smooth Finish.

in this section

laths	**1a**
plasters	**1b**
special construction	**1c**
fire ratings	**1d**

SGP 0022680

G-P/BESTWALL

All G-P/Bestwall gypsum lath consists of a core of incombustible gypsum rock reinforced with glass fibers sandwiched between two layers of special paper covering.

Gypsum laths are designed scientifically to be the base upon which the proper plaster is applied. There are many different kinds of laths for different construction problems.

G-P/Bestwall Plain Lath consists of a core of gypsum rock reinforced with glass fibers sandwiched between two layers of special multi-layer paper covering.

G-P/Bestwall Pinolath, plain lath surface perforated with pinholes no larger than $^1/_{16}$" in diameter, spaced $^3/_8$" o.c. diagonally.

G-P/Bestwall Dens-Cote™ Gypsum Base, tapered edge, with high suction pinholed surface for reception of thin coat plasters.

G-P/Bestwall Long-Length Lath, T&G edges, special lengths up to 12'.

G-P/Bestwall Perfolath, plain lath with $^3/_4$" diameter holes spaced 4" o.c., 48 holes per sheet.

G-P/Bestwall Insulating Lath. Plain lath with aluminum foil laminated on the back.

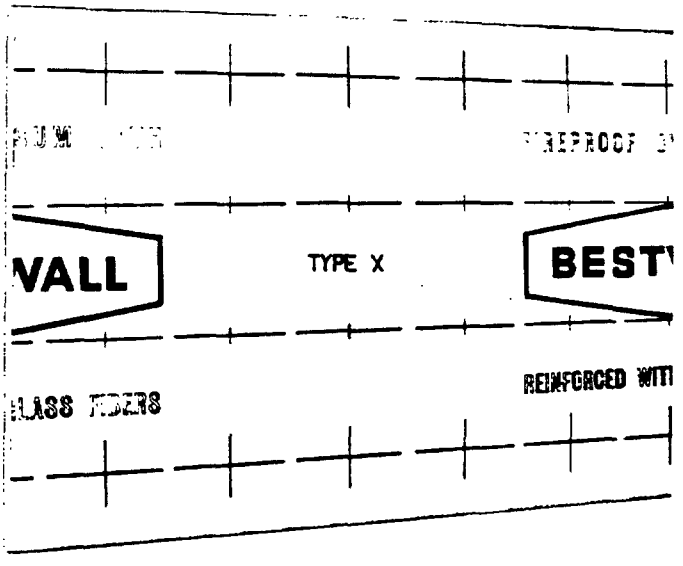
Glass fibered reinforced gypsum rock between two layers of special multi-layer paper covering.

The exposed layer is porous and absorbent, permitting water in the plaster to penetrate the surface. As plaster sets, gypsum crystals pierce the paper surface forming mechanical key on the lath thus assuring maximum bond.

Plain Lath – Economical • Easy to apply • Special paper provides proper suction • Ties the framing members together, increasing resistance to distortion resulting from warping, settling, wind pressure and vibration • Added strength and fire resistance due to reinforcement with glass fibers • All G-P/Bestwall Gypsum Lath, having glass fibers, is Type X • Printed face so identifies lath.

Lath paper has water resistant inner plies which prevent the water in the plaster from soaking through it and thus minimize sagging of the lath and plaster. The layer against the core is porous and absorbent so as to bond to the core as the plaster sets.

This is the standard gypsum plaster base for nail, staple or clip application to wood or steel framing. Available in 16" x 48", $^3/_8$" or $^1/_2$" thick (16$^1/_2$" x 48" West Coast only) – Rounded edges.



The same structure as PLAIN LATH except in dimensions, this construction material is especially designed for use as a plaster base for thin (2") solid partitions providing fire resistive ratings up to two hours. Can also be used with furring over exterior masonry walls as a plaster base.

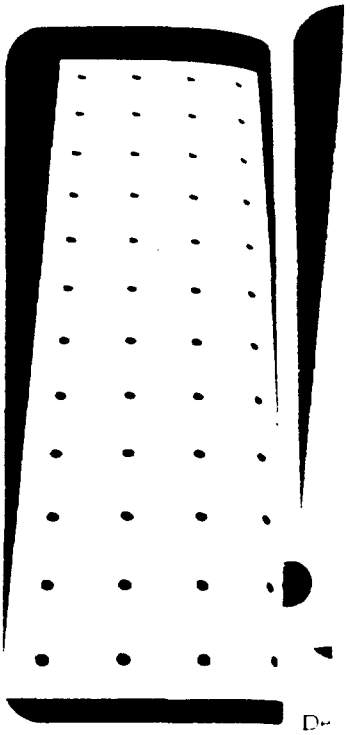
Long-Length Lath – Provides for wall assemblies in floor to ceiling heights • Ideal for solid plaster partitions • Glass fiber reinforced for added strength • Fast and economical to erect.

Application: Both plain and Long-Length Lath may be applied by nailing to wood and nailing-type steel framing, and to wood framing by staples. They can be easily attached to metal sections and furring, and to wood with G-P/Bestwall Olsen Clips. Resilient type clips reduce cracking and lessen sound transmission.

Long Length Lath comes in lengths up to 12', providing for wall assemblies in floor to ceiling heights. Ideal for solid plaster partitions. Since there is less lathing in job–there is a saving in construction costs.

Available in $^1/_2$" or 1" thicknesses–24" x floor to ceiling lengths (12' maximum).

G-P/Bestwall Perfolath is plain lath with $^3/_4$" diameter holes spaced 4" center to center. The perforations allow the plaster to push through the holes and "mushroom" out the back of the lath, locking by forming a mechanical



This key plus the natural bond to the face paper, provides a double bond for greater, a factor that increases protection.

Application: Perfolath may be applied by nailing to wood and nailing-type steel framing, and to wood framing by staples. It can be easily attached to metal sections and furring, and to wood with G-P/Bestwall Olsen Clips. Resilient type clips reduce cracking and lessen sound transmission.

As with all G-P/Bestwall La products, Perfolath is reinforced with literally miles glass fibers for added strength and resilience. Perforations require applications of the thickness of plaster and require separate scratch and brown coats. Available in 16" x 48", $^3/_8$" thick. Round edge

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For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling"

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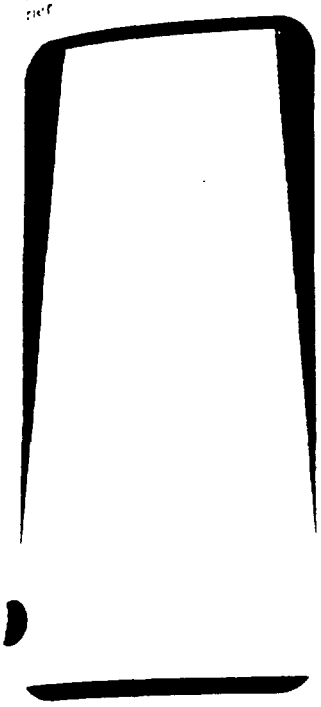
Insulation

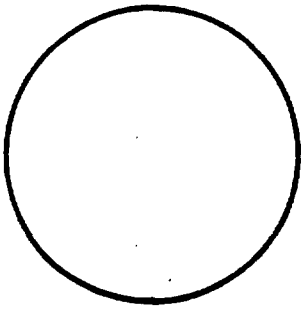
Constructed exactly as PLAIN LATH this lath has aluminum foil laminated to the back. This foil reflects up to 90% of radiant heat and acts as an efficient vapor barrier.



Designed primarily for application to exterior walls and top floor ceilings. When installing the aluminum reflective surface must face a minimum air space of 3/4" to develop reflective insulation value.

Available in 16" x 48", 3/8" or 1/2" thickness. Rounded edges.

G-P/Bestwall PINHOLATH is plain lath surface-perforated in manufacturing with pin holes no larger than 1/16" in diameter, spaced 3/8" o.c. diagonally.



Specially designed for machine applied plasters.

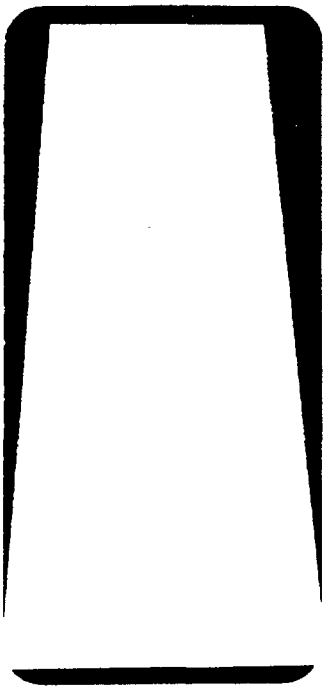
This unique feature permits rapid suction of water from plaster mix to achieve perfect plaster consistency speeding plaster application.

There are no plaster slide, no backtracking, no costly delays. Plaster stays in place during rodding and darbying which can be done sooner when using PINHOLATH. Full base coat coverage is obtainable in one operation.

Available in 16" x 48"; 16" x 96", 3/8" thick. (16 1/5" x 48" West Coast only.)

DENS-COTE™ BASE

G-P/Bestwall Dens-Cote Gypsum Base is a 1/2" thick, 4' wide, tapered edge, glass fiber reinfoced gypsum board product. Specifically designed to receive Dens-Cote Plasters.



(Smooth Finish – Textured Finish – Base Plaster.)

It has a highly absorbent lath type face paper with the surface pin holed. Available in lengths up to 12', is shipped twin mounted. Large sheets decrease number of joints, giving greater strength and crack resistance to wall and ceiling surfaces.

The Dens-Cote System is designed for fast erection and early occupancy; produces a wall with a strong, hard monolithic finish.

Combines economy of installation with virtually unlimited decorative possibilities.

Available in 4' x 8', 10' and 12'; 1/2" thick (3/8" and 5/8" thick; or Firestop Core on order).

G-P/BESTWALL OLSEN GYPSUM LATH CLIPS

G-P/Bestwall Olsen Gypsum Lath Clips permit fast erection of lath over wood or steel framing. Olsen clips attach lath permanently and securely to any framing, require less nailing and no wire-tying. Their strength and flexibility allow slight movement of framing without cracking plaster, compensating for expansion and contraction stresses. Clips also provide resilience in wall and in floor and ceiling constructions, reducing sound transmission. Simplified, efficient design designates their usage in a variety of wall and ceiling assemblages.

THIN SOLID PARTITION

H Clips reinforce external corner wherever gypsum lath is not supported by studding and provide positive anchors for partition junctures.

D Clips engage top edge of the long length lath at ceiling runners.

G Clips stabilize temporary bracing bar that supports lath during plastering operation.

C & E Clips attach flush edges of adjacent lath panels.

RESILIENT WALL CONSTRUCTION

RX Clips attach gypsum lath to wood framing by means of resilient springs in the wire clips and nailed to the framing.

K Clips (Resilient) are starting clips used at the base of a wall.

C Clips (Resilient) are nailed to wood framing members. These clips float the lath free from structure to provide less sound transmission.

RESILIENT WALL CONSTRUCTION

Purr-Field Clips attach gypsum lath to pencil rods.

Rest Clips are the companions to the Purr Clips for attaching pencil rods to hollow metal studs.

Rez Clips are used to resiliently suspend gypsum lath away from hollow metal studs, channels or wood wire studs.

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BASE COAT PLASTERS
for hand or machine application

G-P/BESTWALL
Gypsum plasters

The G-P/Bestwall Gypsum Division manufactures a complete line of highly efficient gypsum base coat and high purity finish plasters. These plasters provide a wide latitude of selection to meet all architectural requirements.

Years of research and field use have demonstrated that glass fibered plaster is one of the most versatile plasters ever developed. This advanced improvement in fibered plasters controls the evenness of the scratch coat to produce good bond, thus assuring speedier and easier installation.

Reinforced gypsum plasters provide excellent strength and durability by setting evenly and uniformly to maximum hardness and strength. Plaster adds mass to masonry units thus providing increased sound reduction and, these plasters are fireproof; gypsum cannot burn and will not transfer heat in excess of 212 F. until all its water of crystallization has been driven off in the form of steam.

Plasters are divided into two categories; Base coat and Finishing plaster. Base coats form that portion of the plaster construction which is applied to lath bases and which help support and develop the properties of the finish coat.

Finish coat plasters provide the last plaster operation before decorating. Various finishes are available, depending on the type of texture or decorative effect desired.

Neat

Neat gypsum plasters are obtainable in three forms: Unfibered, Fibered and Extra Fibered. Neat Gypsum plasters require addition of aggregate and water in the field.

Twin

A plaster designed for hand or machine application (available on the West Coast only). A specially controlled process gives Twin Plaster easy workability for fast, uniform cov-

Wood Fiber

Non-staining shredded fiber additive provides working properties [illegible] without aggregate



1. Unfibered plaster is used for scratch coat on solid surfaces and for the brown (second) coat on any backing.

2. Fibered plaster is recommended to provide greater wet cohesion and to minimize droppings with open type lath.

3. Extra fibered plaster is used for greater wet cohesion over metal lath as may be specified.

Applied according to specifications, G-P/Bestwall Basecoat plasters provide uniformly strong, stable walls and ceilings.

Special, scientifically controlled process maintains plasticity and easy workability.

The incombustibility of gypsum offers superior fire protection in hundreds of constructions over wood or steel frame, in walls and partitions and in floor and ceiling construction and for beams and columns.

erage. In machine application, it prevents clogging in the nozzle and plugging in the hose. It is used with equal facility for hand application. Twin Plaster is available glass fibered or unfibered to meet every job condition.

Speedy Application—Machine plastering speeds construction time and lowers production costs. It eliminates mixing set-up at intermediate floors and dependence upon general contractors for hoisting facilities.

Economy – Machine application, using gypsum lath and plasters developed for this purpose by Georgia-Pacific, Bestwall Gypsum Division, offers maximum coverage per man with minimum waste.

Durability—When mixed and applied according to specifications, resultant plastering develops full strength and hardness resulting in strong, durable walls and ceilings.

Design Flexibility—Machine application lends itself to the flexibility of design for which gypsum plaster is noted, thus placing no limitation on use of this method of application.

Intended for use without aggregate as scratch and brown coat, but may be mixed with one part of sand. For scratch coat over high suction masonry it is recommended that part of sand be used.

Economy—Can be applied quickly and easily.

Strength – G-P/Bestwall Wood Fibered Gypsum Plaster has approximately 3 times greater strength than sanded plaster; up to 2½ times greater resistance to later impact and 50% greater surface hardness.

Fire-Resistant—Wood Fiber Plaster provides excellent fire rating up to 50% higher than sanded plaster.

SGP 0022683

For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling

Concrete Base

...coat plaster designed to ... permanently with mono... concrete. Requires addi... water only in field.

...ally formulated to com... for 2 problems:

Lite-Mix

A base coat plaster that is 50% lighter than gypsum and sand plaster. Available either Fibered, Unfibered or Masonry Mix. Fibered Lite-Mix contains glass fibers to provide added strength and uni-



...A surface too dense for ...rdinary plaster to form a ...chanical key, and

...The difference in thermal ...pansion of concrete and ...rdinary plasters.

Bonding Strength – Concrete Bond adheres well to properly prepared concrete surfaces, columns and beams and on smooth cement block walls.

Low Cost–An economical basecoat plaster to provide for application direct to concrete surfaces.

form thickness with fewer droppings. Requires addition of water only in field.

1. Unfibered Lite-Mix Plaster is used for scratch coat on solid surfaces and for the brown (second) coat on any backing.

2. Fibered Lite-Mix Plaster is recommended to provide greater wet cohesion and to minimize droppings with open type lath.

3. Masonry Mix available for application on masonry bases.

Fire-Resistant – Perlite aggregate provides higher fire resistance than sanded plasters.

Mixes smoothly – Has no tendency to block the nozzle of the plaster gun.

High Insulation Value – Lite-Mix provides greater insulation than sanded gypsum plaster.

QUICK SELECTOR CHART

NAME	USES	COVERAGE (sq. yds per ton)	THICKNESS
NEAT			
Unfibered	Scratch coat on solid surfaces. Brown coat on any surface.	(sanded 2:1) Gypsum Lath: 190-220 Metal Lath: 100-130 Gypsum Tile: 210-240 Clay Tile: 165-200	⅜" ½" ⅝" ¾" ⅞"
Fibered	Scratch and brown coat on all surfaces except monlithic concrete.	(same as above)	(same as above)
Extra Fibered	Scratch coat on metal lath but may be used over all bases except monolithic concrete.	(same as above)	(same as above)
LITE-MIX			
Unfibered, Fibered	Where lightness is desired, for faster, easier application.	Gypsum Lath: 135-150 Metal Lath: 75-90	½" ⅝"
Masonry Mix	For use over high suction masonry base.	Gypsum Tile: 135-150 Clay Tile: 110-125	½" ⅝"
WOOD FIBERED	Without sand-scratch coat and brown coat on all backings except masonry. With sand-scratch coat on masonry and brown coat on all backings.	(without sand) Gypsum Lath: 100-120 Metal Lath: 50-65 Gypsum Tile: 85-100 Clay Tile: 65-85	½" ⅝" ½" ⅝"
CONCRETE BOND	Double back coat on monlithic concrete or as scratch coat only.	Monlithic Concrete: 90-120	⅜" — ½" maximum
SATIN SPAR GAUGING (White)	Mixed with lime for use over gypsum basecoat. Great workability, hard, smooth white surface. Available in quick set or slow set.	1600 (3:1) Mixed 3 parts lime putty to 1 part gauging (Min.)	⅛"
G-P/BESTWALL GAUGING	Mixed with lime for use over gypsum basecoat. Selected quality rock, light gray color. Gives hard, smooth surface. Available in quick or slow set.	1600 (3:1) Mixed 3 parts lime putty to 1 part gaugung (Min.)	⅛"
PREPARED TROWEL FINISH	Where uniformity and extra hardness are desired. Can be decorated when dry—no waiting period. For use over gypsum basecoat only. White or gray color. Mixed with water only.	350-400	⅛"
PREPARED SAND FLOAT FINISH	Same as prepared trowel finish except surface will be textured. White or gray color.	250-275	
KEENE'S CEMENT	Mixed with lime. Gives strong, dense surface with resistance to abrasion and water. Two sets regular and fast finish.	(4:1 Mix) 550	⅛"
MOLDING	Made from rock over 98% pure. Gives hard, strong molds and coats with low expansion. Mixed with lime and water for ornamental features.		
DENS-COTE SMOOTH FINISH	Mixed with water only. For thin coat application to Dens-Cote Gypsum Base.	Up to 400	1/32" Minimum
DENS-COTE TEXTURE FINISH	Same application as Smooth Finish. Mill mixed texture material, texture with float as desired.	Up to 400	1/32" Minimum
DENS-COTE BASE PLASTER	First coat in two coat thin plaster system. Finish may be Smooth Finish or Lime Putty mixed with gauging.	Up to 400	1/32" Minimum
	Dens-Cote Smooth or Textured finish may be applied to masonry Block in two coat application. Base coat minimum thickness of ⅛" or enough to straighten wall. Finish coat may be smooth or textured as desired.		
FINISHING LIME			
SMOOTH FINISHING (Normal Hydrated) **BUILDERS** (Autoclaved)	(Ohio Dolomite) Mixed with gauging, molding plaster or Keene's Cement to give plasticity, whiteness and bulk.	Up to 750	⅛"

SGP 0022684

Gypsum plasters cont'd.

FINISHING PLASTERS

Specially ground gypsum finishing plasters designed to be blended with lime putty. They provide the base for final wall or ceiling decoration.

Very white plasters made from selected gypsum rock of exceptionally high purity. Specially ground and processed to provide hard strong molds and casts.

A pre-mixed gypsum finish coat plaster requiring addition of water only. Made from high grade gypsum rock of white or local gray.

A high strength, [illegible] white gypsum plaster [illegible] vides stronger, harder [illegible] when substituted for [illegible] plaster in a lime-gauging [illegible]





Usually applied over a gypsum basecoat and to a thickness of $\frac{1}{16}$" to $\frac{1}{8}$". Available in "Slow Set" and "Quick Set."

White Coat Finish – Gauging sets to provide a hard, strong, smooth white coat finish, over gypsum basecoat.

Plasticity – Lime is used to furnish whiteness, plasticity and bulk.

1. Satin Spar Gauging Plasters are very white and when properly mixed with lime putty they provide a glossy smooth, flawless surface of uniformly excellent, satin-like finish.

2. G-P/Bestwall Gauging Plasters made of local rock are recommended for use where a high white finish is not necessary. They furnish the same high quality surface as Satin Spar.

Excellent for run work and ornamental features.

1. Sunflower Molding Plasters are very white and are ground exceedingly fine. They are specially processed to make pure white molds, free from voids and pinholes.

2. G-P/Bestwall Molding Plasters made of local rock are recommended for use where a high white work is not necessary. They furnish the same high quality surface as Sunflower.

Strength–produces very hard surfaces, approximately twice the strength of ordinary lime-gauging finishes.

Easy Decoration – can be decorated as soon as dry.

The lower the lime cont[illegible] the harder the finish. Av[illegible] able Regular and Fast set.

Resistance to Abrasion – [illegible] vides high resistance to abrasion making it suitable for [illegible] in bathrooms, kitchens, hospitals, etc.

Low Water Absorption – [illegible] cause of high density, has [illegible] water absorption.

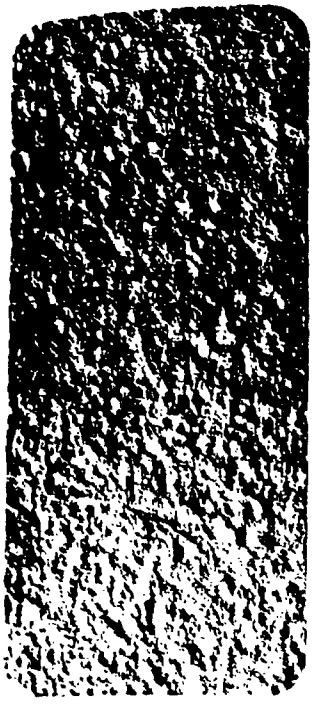
Various Finishes–Keenes Cement when mixed with different proportions of lime putty provides "standard hard," "medium hard" and "extra hard" finishes.

SGP 0022685

For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling."

DENS-COTE™

Dens-Cote Smooth Finish is a specifically designed plaster that is applied to a minimum of ⅛" over Dens-Cote Base in a single coat (scratch and double up).



It provides a wall with a strong, hard monolithic finish that can receive virtually any type of decoration. With Dens-Cote Smooth Finish no aggregate or special machinery is needed.

Part of the Dens-Cote System of construction this product may be applied to walls and ceilings over wood or metal framing, it helps to effectively reduce sound passage from room to room. Designed for fast erection and early occupancy.

Dens-Cote Texture Finish is a mill mixed plaster that is applied to a minimum of 3/32" over Dens-Cote Base in a single coat (scratch and double up) and finished with a wood float or other device to the desired textured finish.

DENS-COTE™

The application of approximately ⅛" of Dens-Cote Base Plaster over glass fiber reinforced Dens-Cote Base with an additional finish coat produces monolithic finish that will last a "house time."

Designed for fast erection in either residential or commercial construction. Designed for use with conventional finishes.

Use 2½" wide fiber mesh to reinforce all flat joints and angles. Use 1" x 1" perforated metal beads for corners. Corner beads should be set to regulate plaster thickness at ⅛" maximum. Nail or screw corner bead to framing member. For best results, apply the mesh by embedding it with Dens-Cote Base Plaster. This is accomplished by troweling a layer of Dens-Cote Base Plaster over the joint area and pressing the glass fiber mesh into the Dens-Cote with a trowel. The mesh may be first stapled to the Dens-Cote Base, if desired. In any case, the mesh must be embedded with Dens-Cote before the over-all application begins. At the same time, fill all metal corner beads. These areas may be allowed to set before the over-all application is commenced. This preliminary embedding of the joints keeps the glass fiber mesh from wrinkling, promotes uniform takeup, and assures positive keying of Dens-Cote Base Plaster into the mesh.

Trowel the Dens-Cote Base Plaster tightly over the entire wall or ceiling surface. This application should be uniform —about ⅛" thick.

As soon as Dens-Cote Base Plaster has taken up sufficiently, straighten wall but do not trowel smooth. Leave rough so that finish coat will key properly.

Apply finish coat as soon as possible after base coat has set.

Finish with lime putty and gauging for a conventional smooth finish, or use any sand float or textured finish.

If a hard durable finish is desired, use Dens-Cote Smooth Finish.

Finishing Limes

Lime refers to a variety of products made from limestone. G-P/Bestwall lime is consistently good because. There is a minimum of impurities in the lime; burning is complete—but not at too high a temperature and, finally, all over and under lumps are picked out as they come from the kiln. G-P/Bestwall Finishing Limes are composed of hydroxides which prevent metal lath and nails from rusting. Precision ground to produce the correct fineness for maximum plasticity and workability, they supply a white durable finish that preserves and beautifies interior walls and ceilings.

A normal hydrated lime that must be soaked approximately 16 hours and then blended in proper proportions (one gallon of gauging plaster to every three gallons of lime putty) with gypsum gauging plaster which provides initial set and strength avoiding shrinking cracks.

This finishing lime is made from the same quicklime as G-P/Bestwall Smooth Finishing Lime, but is hydrated in a steel Autoclave (pressure vessel). Water is injected and after the quicklime satisfies its chemical thirst for water, the lime is removed from the Autoclave chamber as dry hydrate and undergoes aeration to remove any possible uncombined moisture.

This lime has less than 8% of unhydrated oxides and prevents "lime pops." Builders Lime need only be mixed with water to a putty consistency and can be used without soaking. G-P/Bestwall Builders Lime has more workability and plasticity than other finishing lime.

Masonry Limes

This is normal hydrated lime made from quicklime and—except for its coarser quality and shorter aeration process—the manufacture, hydration and milling are approximately the same as for G-P/Bestwall Finishing Limes. G-P/Bestwall Mason's Lime should be soaked at least 12 hours in putty form before use in mortar . . . it should not be used as finishing plaster because the finish will not be up to standard and "pops" may occur.

This is the original Type "S" Special hydrated lime, a quick mix lime that need not be soaked in putty form before use. Produced by a continuous pressure on Autoclave system G-P/Bestwall Speedy Mason's Lime differs from Bestwall Autoclaved Finishing Lime only in the coarser quality of the quicklime used. Efflorescence is minimized because the lime is free of soluble salts.



SGP 0022686

G-P/BESTWALL

Gypsum lath & plaster partition systems & column fireproofing

THIN SOLID PARTITIONS

Thin Solid Partitions consist of (1) ½" or 1" long length gypsum lath (½" T&G edges and 1" T&G or shiplapped edge) plus two coats of Neat Base Coat Plaster (sanded or perlited) both sides to a thickness of up to 2" thick and finished with a lime putty coat of G-P/Bestwall Finishing Lime mixed with G-P/Bestwall Gauging, or (2) metal lath on ¾" cold rolled channels plastered on both sides as over gypsum lath. Refer AIA File No. 2-B-1—Metal Lath Specifications for Metal Lathing and Furring.

A 2" Solid Partition is a non-loadbearing (non-supporting) unit composed of G-P/Bestwall Long-Length Gypsum Lath three-coated out on both sides to a total of 2" thickness.

No studding is required. The lath is inserted into floor and ceiling runners and is temporarily braced during the plastering operation. 1" core lath eliminates need for bracing during plastering. 2" Solid Partitions make economical floor area dividers and render more usable space than hollow or tile partitions.

In the construction of Thin Gypsum Lath Partitions, 25 gauge metal floor and ceiling runners are firmly secured and the gypsum long length lath are positioned and fastened with various Olsen wire clips.

H Clips reinforce external corners wherever gypsum lath is not supported by studding and provide positive anchors for partition junctures. **D Clips** engage top edge of the long length lath at ceiling runners. **G Clips** stabilize temporary bracing channels that supports lath during plastering operation.

G-P/Bestwall Olsen Gypsum Lath Clips provide easier, faster erection and eliminate wire tying. Tested under A.S.T.M. Standards. 2" Solid Partitions of lath and sanded plaster qualify for 1-Hour fire rating. For higher fire ratings, consult Technical Data—Lath and Plaster Construction on page F/11.

WOOD and STEEL STUD PARTITIONS

Wood

⅜" or ½" thickness of Plain, Pinholath or Perfolath in sizes 16" x 48"-96" may be fastened to wood studs spaced 16" O.C.-24" O.C. with nails, screws or staples. Sanded, Perlited G-P/Bestwall Neat Base Coat Plasters are applied in two coats, both sides of the assembly to the required thickness to conform to the various fire resistive ratings finished with G-P/Bestwall Smooth Finish or Builders Lime.

Steel

Gypsum Lath may be attached to metal or wood framing with various types of Olsen Clips that hold the gypsum in suspension from the framing. This type application may have the same fire resistive ratings as gypsum lath directly attached to wood framing with nails, staples or screws. Sound characteristics of resilient wall construction provide higher Sound Transmission Class Ratings.

Resilient wall construction requires the use of Olsen Clips **RSF Clips** (resilient) Starting and finishing clip used at the base of a wall. **C Clips** (resilient) Nailed to wood framing members. **RX Clips** Attach gypsum lath to wood framing by means of resilient wire clips and nailed to the wood framing. These clips float the gypsum lath free from wood framing to provide greater resiliency and less sound transmission.

Purr/Field Clips—attach gypsum lath to pencil rods. **BC Starter / Finisher Clip** drives under all types of track and fastens gypsum lath firmly against pencil rod stud. **C Clip** Attaches gypsum lath to pencil rod stud.

HOLLOW STEEL STUD PARTITIONS

Hollow Steel Stud Partitions consist of gypsum lath and plaster over steel studding. These partitions may be load bearing or non-loadbearing depending on studding used.

For thick partitions providing for piping and better sound values the 2 sides can be separated using studs on each side.

BCR—Resilient Starter/Finisher Clip – Drives under all types of metal track and maintains resilience of starting and finishing courses of gypsum lath. **REZ**—Used to resiliently suspend gypsum lath away from hollow metal studs, channels, or welded wire studs.

Olsen Clips with Steel Studs. Attach ⅜" thick gypsum lath to Steel Stud (sizes 1⅝", 3", and 3⅝"). **BC Starter Clip** driven under the various size floor runners. **C Bridge Clip** attaches end joints of gypsum lath. **JX-DW Clip** attaches gypsum lath to box steel stud.

Resilient attachment of ⅜" gypsum lath with Olsen RX-DW Clip to Box Steel Stud. **BCR Starter Clip** drives under the various floor runners and holds gypsum lath in suspension from box stud. **C Bridge Clip** attaches end joints of gypsum lath. **RX-DW Field Clip** attaches and holds gypsum lath in suspension from box steel stud. These clips require no screw guns or special equipment to attach ⅜" gypsum lath.

G-P/Bestwall Gypsum Lath is secured to the studs by use of transverse clips or other special clips and techniques. These partitions are particularly adaptable where pipes are to be concealed.

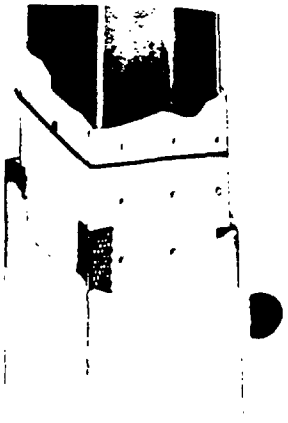
Weight of Hollow Steel Stud Partitions is determined in pounds per square foot and will range from 10 lbs. to 15 lbs. depending upon aggregate used and thickness. A 1-Hour fire rating is obtained when G-P/Bestwall Perfolath and a ½" plaster is used. Mix is 1 part plaster to 2 parts lightweight aggregate or sand.

Non-Loadbearing Lath and Plaster Assemblies will not resist stresses imposed by structural movement. It is recommended such construction be isolated from structural elements of the building by control joints.

COLUMN FIRE PROOFING

Fireproofing of the beam, columns is accomplished abutting ⅜ G-P Perfolath around the imeter of the beam and plastering to thickness quired for desired fire ance rating

The Perfolath is held by double strands of around the lath and 16" o.c. Cornerbeads are by staples or tie wire ground for proper as well as straight ners.



Sanded plaster is used for ratings up to three Lightweight aggregates vide fire ratings up to 4 A 4 hour column rating quires two layers of gypsum lath

SGP 0022687

 For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior

Technical Data, Fire Ratings and Sound Transmission Values for Gypsum Lath and Plaster Wall Systems

CONSTRUCTION		TYPE BASE	PLASTER MIX (1 part of Gypsum Plaster (100 pounds) to cu. ft. aggregate)	PLASTER THICKNESS (Face of Lath to Face of Finished Surface)	FIRE RATING	WEIGHT LBS PER SQ. FT.	9 FRQ. AV.
PARTITIONS		(2 Mixes—Scratch and Brown) (1 Mix—Scratch Double-Up)					
Description	Thickness						
2" x 4" Wood Studs 16" on Center	5⅛"	⅜" Bestwall Pinnolath	Gypsum-Sand 1:2	½"	1 Hour	15	35 to 45
	5⅛"	⅜" Bestwall Pinnolath	Gypsum-Perlite 1:2	½"	1 Hour	12	—
	5⅛"	⅜" Bestwall Plain Gypsum Lath	Gypsum-Sand 1:2	½"	1 Hour	15	35 to 45
	5⅛"	⅜" Bestwall Plain Gypsum Lath	Gypsum-Perlite 1:2	½"	1 hour	12	—
	5⅛"	⅜" Plain Gypsum Lath	Gypsum-Sand 1:2, 1:2	½"	45 Minutes	14.7	35 to 35
	5⅛"	⅜" Plain Gypsum Lath	Gypsum-Wood Fiber	½"	1 Hour	—	—
	5⅛"	⅜" Perforated Gypsum	Gypsum-Sand 1:2, 1:2	½"	1 Hour	—	—
	5⅛"	⅜" Perforated Gypsum	Gypsum-Perlite 1:2, 1:2	½"	1½ Hours	—	—
	5⅛"	Metal Lath	Gypsum-Sand 1:2, 1:3	¾"	1 Hour	—	—
	5⅛"	Metal Lath	Gypsum-Wood Fiber	⅛"	2 Hours	—	—
	5¼"	Metal Lath	Gypsum-Perlite 1:2, 1:2	¼"	1 Hour	—	—
	5⅛"	Metal Lath	Gypsum-Vermiculite 1:2, 1:2	¼"	1 Hour	—	—
	4¾"	One layer ½" Bestwall Firestop Dens-Cote base, both sides.	Dens-Cote smooth finish	1/32"	1 Hour	7.7	35-36
	6"	Two layers ⅝" Bestwall Firestop Dens-Cote base, both sides.	Dens-Cote smooth finish	1/32"	2 Hours	13.8	39-41
Solid Partitions	2"	½" Long Length Gypsum Lath	Gypsum-Sand 1:1, 1:2	¾"	1 Hour	16.5	38
	2"	½" Long Length Gypsum Lath	Gypsum-Perlite 1:2	¾"	1½ Hours	—	—
	2"	½" Long Length Gypsum Lath	Gypsum-Perlite 1:2, 1:2	¾"	2 Hours	10.9	37
	2"	½" Long Length Gypsum Lath	Gypsum-Vermiculite 1:2, 1:2	⅛"	2 Hours	—	—
	2"	Metal Lath	Gypsum-Sand 1:2, 1:2	1"	1 Hour	18.1	38
	1½"	Metal Lath	Gypsum-Perlite 1:2	¾"	1 Hour	7.4	33
	2½"	Metal Lath	Gypsum-Perlite 1:2, 1:2	1¼"	2 Hours	—	—
	2½"	Metal Lath	Gypsum-Vermiculite 1:2, 1:2	1¼"	2 Hours	—	—
Steel Frame	5⅛"	⅜" Bestwall Pinnolath	Gypsum-Sand 1:2	½"	1 Hour	14	—
	5⅛"	⅜" Bestwall Pinnolath	Gypsum-Perlite 1:2	½"	1 Hour	10	—
	4¼" to 5⅛"	⅜" Plain Gypsum Lath	Gypsum-Perlite 1:2	½"	1 Hour	16	30
	4¼" to 5⅛"	⅜" Bestwall Pinnolath nailed to each side of 2½" steel stud.	Gypsum-Sand 1:2	½"	1 Hour	16 to 21	—
	4⅛" to 5⅛"	⅜" Perforated Gypsum Lath	Gypsum-Sand 1:2, 1:2	½"	1 Hour	to	to
	5⅛"	Metal Lath	Gypsum-Sand 1:2, 1:3	¾"	1 Hour	21	41
	4¾"	⅜" Bestwall Gypsum Lath-Type "X" attach with clips each side of 2½" steel stud.	Gypsum-Sand 1:2	½"	1 Hour	11.8	45
	4"	⅜" Perforated Gypsum Lath	Gypsum-Perlite 1:2, 1:2	½"	2 Hours	15	
	3 1/16"	One layer ⅝" Bestwall Firestop Dens-Cote base, both sides, 1⅝" metal stud	Dens-Cote Smooth Finish	1/32"	1 Hour	7.0	38-40
	4¼"	Two layers ½" Bestwall Firestop Dens-Cote Base. Both sides—2½" metal stud	Dens-Cote Smooth Finish	1/32"	2 Hours	9.8	48-50
	6 1/16"	Two Layers ⅝" Bestwall Firestop Dens-Cote Gypsum Base, Both Sides 3⅝" metal stud	Dens-Cote Smooth Finish	1/32"	2 Hours	12.8	45
COLUMNS							
Columns (Steel)		⅛" Perforated Gypsum Lath	Gypsum-Sand 1:2½	½"	1 Hour	—	—
		⅛" Perforated Gypsum Lath	Gypsum-Sand 1:2, 1:3	1⅛"	2 Hours	—	—
		⅛" Perforated Gypsum Lath	Gypsum-Perlite 1:2½	1"	2 Hours	—	—
		⅛" Perforated Gypsum Lath	Gypsum Perlite 1:2, 1:3	1⅛"	3 Hours	—	—
		2" Layers ½" Plain Gypsum Lath	Gypsum-Perlite 1:2, 1:3	1½"	4 Hour	—	—
		Metal Lath	Gypsum-Sand 1:2, 1:3	¾"	1 Hour	—	—
		Metal Lath	Gypsum-Perlite 1:2, 1:3	1¼"	4 Hours	—	—

NOTE: This table is a summary only, based on tests at Underwriters' Laboratories, National Bureau of Standards, University of California, Ohio State University, Geiger and Hamme, Riverbank Laboratories and/or Ohio Research corporation sponsored by the Bestwall Gypsum Division, Gypsum Association, Metal Lath Association, Perlite Institute, Vermiculite Institute or others. The fire rating, weight and sound characteristics are based on a combination of specific details as tested and published.
More Complete Listings and Details Are Available.
1. 9 Frequency Average is the average decibel loss using nine of the eleven frequencies 125 to 4000 CPS range (Minus-1400 and 2800 Frq.)

WARRANTY:

The assemblies covered above have been developed with due regard to practical construction methods. However, since the Bestwall Gypsum Division does not have any prior knowledge of a specific building design and its construction or the methods of application used with their products, no warranty of performance is made. All of the test results have been obtained under laboratory testing conditions where controlled environment reduces variables to a minimum. In the field, such laboratory conditions are not always met, since other variables are introduced. Laboratory results may exceed results of field tests, but the laboratory tests under controlled conditions are the only logical way to compare the performance of different assemblies. The Bestwall Gypsum Division of the Georgia-Pacific Corporation makes no warranty that the performance of assemblies in the field will have a performance equal to or better than that developed in the test.

G-P/BESTWALL
Lath & Plaster Specifications

Specifications for Interior Gypsum Plastering

1. Materials

A. Gypsum Lath shall conform to the current Standard Specifications for Gypsum Lath. ASTM Designation: C37 Gypsum lath shall be one of the following types: Plain, Perforated, Pinholath or Insulating.

All gypsum lath shall be as manufactured by G-P/Bestwall Gypsum Division and shall conform to the following dimensional requirements:

Thickness, ⅜" or ½" or 1".

Width, 16" (a) or 24".

Length, 48" (b).

(a) 16½" wide lath is available in Pacific Coast Markets.

(b) Long length lath ½" or 1" thick, is available for special systems such as solid gypsum lath and plaster partitions and furred walls.

B. Gypsum Lath Clips shall be G-P/Bestwall Olsen Gypsum Lath furnished by G-P. Bestwall Gypsum Division.

C. Other Metal Accessories such as corner beads, base screeds, concealed picture molds, etc., shall be not lighter than No. 26 U. S. gage steel, zinc coated, with perforated or or expanded flanges or clips shaped so as to permit complete embedment in the plaster.

D. Channels shall be hot-rolled or cold-rolled steel, free of rust, with required weight per thousand lineal feet.

2. Application of gypsum lath

A. Except where noted below G-P/Bestwall Gypsum Lath shall be securely nailed to wood supports spaced not to exceed 16" on center (24" on center for ½" lath) with 13 gage 1⅛" long (1¼" long for ½" lath), 19/64" flat head, blued nails approximately 5" o.c. The nails shall be driven with the underside of the head flush with face of the lath and shall not be closer than ⅜" from edges or ends. There shall be not less than four nails per lath per support with 16" wide lath. Where 24" wide lath is applied, there shall be at least 5 nails per lath per support, approximaately 5" on center.

B. Where ⅜" Gypsum Lath is used for certain fire resistive rated construction, five 13 gage, 1⅛" long, ⅜" flat head, blued nails per lath per support for 16" wide lath may be required.

C. ⅜" G-P/Bestwall Gypsum Lath may be applied with staples to wood nailing members by means of a pneumatic tool. Staples shall be not less than 16 gauge flattened galvanized wire, 7/16" flat crown, divergent point, not less than ⅞" long. Staples shall be driven with the crown parallel to the long dimension of the nailing member, using not less than 4 staples per 16" width of lath per nailing member and not more than 5" o.c., in such a manner that the crown bears tightly against the lath but does not cut into the face paper. The legs of the staples shall not be closer than ⅜" from the ends and edges of the lath.

D. G-P/Bestwall Gypsum Lath shall be applied with its face side out and with the long dimension at right angles to the framing members. End joints shall be made to fall on different supports in alternate courses, or the lath shall be applied so that end joints are made continuously on one support in the latter case, the continuous joints shall be covered with 3" wide strips of metal lath and the long or edge joints shall be offset or staggered. In all cases, the lath shall be butted together.

E. Corner bead shall be used over lath to protect all external vertical corners and to establish grounds, and shall be attached securely in such a manner as to assure proper alignment during application of plaster.

F. Cornerite shall be provided at all interior angles and shall be nailed lightly or stapled to the lath, not to the framing members.

G. Where G-P/Bestwall Olsen Gypsum Lath Clips are used in the erection of lath and shall be in accordance with the directions and details shown in the various constructions.

3. Metal lath and metal furring

Shall be in accordance with ASA Standard Specifications for Interior Lathing and Furring No. A42.4 (latest current version).

4. Workmanship

All metal construction and lathing shall be erect so that finished plaster surfaces may be true to line, and be level, plumb, square, curved or as otherwise required, without excessive thickness of plaster.

These specifications follow and incorporate portions of the American Standards Association's Standard Specification for Gypsum Plastering A42.1-1965 but is revised in format and organization to conform to the current recommendations of the G-P, Bestwall Gypsum Division.

Specifications for Interior Lathing

1.

A. Extent of Work: All plastering shall be done in accordance with the procedure as herein specified. This specification includes all labor, materials, services, equipment and scaffolding necessary to complete the project in accordance with the drawings and specifications.

B. Work Not Included: The following items are not intended to be part of these recommendations.

1. Spray on fireproofing.

2. Spray applied decorative finishes.

3. Wood furring and wood grounds.

C. General Requirements

1. A uniform temperature of not less than 55° F. shall be maintained in the building for a period of seven days prior to the application of the plaster, during the plastering operation and after plastering, as required, until the plaster is dry. When temporary heat is required, proper measures shall be taken to insure that the heat is evenly distributed into all plaster areas. Deflection or protective screens shall be used to prevent concentrated or uneven distribution of heat on plaster areas near the heat source.

2. Ventilation shall be provided for drying the plaster during and after the application.

3. Where lath and plaster ceilings are located under roof constructions, the space thus enclosed either with or without a vapor barrier in insulation, shall be adequately ventilated in accordance with accepted engineering practice. The space above the ceiling shall be ventilated so that the ratio of the total net free ventilating area to the area of the ceiling shall be not less than 1/150. Location of vents shall provide cross ventilation.

4. Areas, such as doors, windows, etc., shall be properly closed in to prevent drafts.

5. Scaffolding shall be constructed and maintained in strict conformity with applicable laws and ordinances and in such a manner as not to interfere with or obstruct the work of others.

6. The work shall be properly coordinated with the work of other trades.

7. All products shall be delivered in their original packages, containers or bundles.

8. The plaster and all cementitious materials shall be kept dry until ready for use and shall be kept off the ground, under cover and away from damp walls or surfaces.

2. Materials

A. Plastering Materials

The plaster materials shall be selected from the following categories and brands manufactured by G-P Bestwall Gypsum Division as conforming to the current ASTM specifications noted:

G-P BESTWALL Gypsum Plaster

G-P BESTWALL Lite Mix

G-P BESTWALL Wood Fibered Plaster

G-P/BESTWALL Concrete Bond Plaster

G-P/BESTWALL Prepared Trowel Finish

G-P BESTWALL Prepared Sand Float Finish

G-P BESTWALL Satin Spar White Gauging Plaster

G-P BESTWALL Gauging Plaster

G-P BESTWALL Sunflower Molding and Casting Plaster

G-P BESTWALL Keene's Cement

G-P BESTWALL Builder's Lime (Autoclaved Finish) C206

G-P BESTWALL Smooth Finishing Lime (Normal Hydrated) C6

SGP 0022689

For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling"

Specifications (cont'd.)

B. Aggregates (for use with gypsum plaster) Sand. Perlite or Vermiculite shall conform to ASTM Specification C35-57T for use in basecoat plaster. For plastering, the aggregate weight per cu. ft. shall be for sand, 100 lbs.; for Perlite and Vermiculite, 7 to 8 lbs. Fine Sand having rounded particles uniform in size frequently called "quicksand." fine Perlite or fine Vermiculite shall not be used.

C. Aggregates for Finish Coats Aggregate for use in gypsum lime putty trowel finish, such as silica sand, perlite, etc., shall be graded within the following limits:

Sieve Size	Percentage Retained on Sieve: Perlite by Volume Min.	Perlite by Volume Max.	Sand by Weight Min.	Sand by Weight Max.
No. 20 (841 micron)	0	—	0	—
No. 30 (595 micron)	10	0	10	0
No. 100 (149 micron)	100	40	100	40
No. 200 (74 micron)	100	70	100	70

D. Water shall be clean, fresh and suitable for domestic consumption.

E. Delivery and Protection of Materials

All manufactured materials shall be delivered in the original packages, containers, or bundles bearing the name of the manufacturer and the brand. Plaster and all cementitious materials shall be kept dry until ready to be used. They shall be kept off the ground, under cover, and away from sweating walls and other damp surfaces. Metal goods shall be protected against rusting.

3. Neat

A. G-P/Bestwall Base Coat Plaster shall be mixed with sand, perlite or vermiculite in the proportion of 100 lbs. of plaster to not more than:

Recommended aggregate proportions with G-P Bestwall Base Coat Plaster. Note Six ±2 shovels of loose damp sand for equivalent to 1 cu. ft. of sand

PLASTER BASE OVER GYPSUM LATH

Number of Coats	Type of Coat	Sand: By Vol. (Cu. ft.)	Sand: By Wght. (Lb.)	Perlite Vermiculite (Cu. ft.)
		Damp and loose		
Two Coat Work	Basecoat	2½	250	2
Three Coat Work	Scratch Coat	2	200	2
	Brown Coat or Scratch and Brown Coats	3†	300	2*
		2½	250	—

PLASTER BASE OVER METAL LATH

Number of Coats	Type of Coat	Sand: By Vol. (Cu. ft.)	Sand: By Wght. (Lb.)	Perlite Vermiculite (Cu. ft.)
		Damp and loose		
Three Coat Work	Scratch Coat	2	200	2
	Brown Coat or Scratch and Brown Coats	3†	300	2*
		2½	250	—

PLASTER BASE OVER UNIT MASONRY

Number of Coats	Type of Coat	Sand: By Vol. (Cu. ft.)	Sand: By Wght. (Lb.)	Perlite Vermiculite (Cu. ft.)
		Damp and loose		
Two Coat Work	Basecoat	35	300	3
Three Coat Work	Scratch Coat	35	300	3
	Brown Coat	35	300	3

*Where the plaster is 1 inch or more in total thickness, the proportions for the brown coat may be increased to 3 cu. ft.
†Over high suction unit masonry, the proportion of sand may be increased to 4 cu. ft.

Neat plaster should not be applied directly to monolithic concrete. For recommendations for plastering over concrete see Section 4 and use Concrete Bond Plaster Bonding agents for application to monolithic concrete as a base for the reception of plaster may be made at the discretion of the specifier. Such bonding agents shall be applied in accordance with recommendations of the manufacturer.

B. G-P/Bestwall Lite-Mix Plaster: Lite-Mix Plaster is a gypsum ready mixed plaster in which perlite aggregate has been incorporated with the gypsum plaster at the plant. It requires the addition of water only for use.

C. G-P/Bestwall Gypsum Wood-Fibered Plaster

1. G-P/Bestwall Gypsum wood fibered plaster shall normally be used without the addition of aggregate but may be mixed with one part of sand.

2. Over masonry bases or over lath as a brown coat, sand shall be used, the proportions shall not exceed one cubic foot of aggregate per 100 pounds of gypsum wood-fibered plaster.

4. Plaster thickness

A. Plaster shall be of the following thickness when measured from the face of the plaster base to the face of the finished plaster surface (allowing approximately $\frac{1}{16}$" to $\frac{1}{8}$" for finish coat).

1. Metal Lath—$\frac{5}{8}$" minimum (when measured from the back of the lath, excluding rib lath, thickness shall be $\frac{3}{4}$" minimum).

2. Gypsum Lath – $\frac{1}{2}$" minimum.

3. Unit Masonry – $\frac{5}{8}$" minimum (except gypsum tile, $\frac{1}{2}$" minimum).

4. Monolithic Concrete:

a. Walls—$\frac{5}{8}$" maximum.

b. Ceilings—$\frac{3}{8}$" maximum.

c. Where greater thicknesses are required, metal lath shall be firmly attached to the concrete prior to the application of the plaster.

B. Plaster Grounds

1. Metal grounds, screeds, etc. shall be furnished and installed by the (lath) (plaster) contractor.

2. Plaster screeds shall be applied by the plastering contractor.

3. Wood grounds shall be furnished and installed by others.

5. Preparation for plastering

A. All metal grounds, corner beads, screeds, picture molds, etc., shall be carefully examined to see that they are straight, plumb, level, square, or true to the required angles before the plaster is applied.

B. Plaster shall not be applied to masonry or concrete surfaces that have been coated with a bituminous compound or other waterproofing agents.

C. Masonry surfaces exhibiting high suction shall be evenly dampened to provide proper suction prior to plastering. Allow sufficient time for surface suction to equalize.

D. Monolithic Concrete

1. Monolithic concrete surfaces to receive bond plaster shall be cleaned of all dust, loose particles and other foreign matter.

2. Concrete surfaces shall have sufficient roughness to provide a proper bond. If surfaces are not rough, they shall be hacked or brush hammered or a dash coat of portland cement grout composed of one part cement to $1\frac{1}{2}$ parts fine sand mixed to a mushy consistency shall be applied. The portland cement grout shall be forcibly applied to the concrete surface, using a stiff fiber brush, with a whipping motion. This coat shall be kept damp for at least two days immediately following its application and then allowed to dry. Before application of plaster, the surface shall be evenly dampened, if necessary, to provide proper suction.

3. The use of dressed (smooth) lumber, metal and plywood forms, oiled or greased forms, or vibrated concrete produces concrete surfaces which are too smooth to receive plaster.

E. Grouting Metal framing and Bases

1. Hollow metal bases, metal door frames and metal framed openings, when used for solid partitions, shall be fully grouted prior to lathing. The grout shall be screeded approximately $\frac{1}{4}$" below the top edges of the base so as to form a center groove to permit the lath to extend below the top edge of the base.

2. Metal door bucks and framed openings in hollow steel stud partitions shall be fully grouted prior to lathing. Where basecoat plaster is flush with metal base, metal frames, etc., plaster shall be

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plastering specs. cont'd.

cut free from these metal sections before the plaster sets. The finish coat shall be grooved at this junction to prevent chipping.

A. Hand Mixing

1. G-P/Bestwall Gypsum Neat Plaster–(Aggregate required) Aggregate and plaster shall be mixed dry to a uniform color at one end of the mixing box, hoed into the water and thoroughly mixed to the proper consistency.

2. G-P/Bestwall Lite-Mix Plaster–(Aggregate shall not be added). Plaster shall be hoed into the water and thoroughly mixed to the proper consistency.

3. G-P/Bestwall Gypsum Wood Fibered Plaster–(Without aggregate.) Plaster shall be hoed into the water and thoroughly mixed to the proper consistency.

4. G-P/Bestwall Gypsum Wood Fibered Plaster (With aggregate.) Plaster and aggregate shall be mixed dry to a uniform color at one end of the box, hoed into the water and thoroughly mixed to the proper consistency. (See section 3-B.)

B. Mechanical Mixing

With the mixture in operation, the following procedures shall be followed:

1. G-P/Bestwall Gypsum Neat Plaster.

a. Put in the approximate amount of water.

b. If sand is used add approximately half of the amount of sand. If perlite or vermiculite is used, add all of the aggregate.

c. Add all of the plaster.

d. Add remainder of the sand aggregate.

e. Mix to proper consistency, adding water if necessary.

f. Dump the entire batch and use.

g. Clean the mixer.

2. G-P/Bestwall Lite-Mix Plaster.

a. Put in the approximate amount of water.

b. Add the plaster.

c. Mix to proper consistency, adding water if necessary.

d. Dump the entire batch and use.

e. Clean the mixer.

3. G-P/Bestwall Gypsum Wood Fibered Plaster – May be used with or without the addition of aggregate. (See section 3-B2.)

a. When aggregate is added, the procedure outlined in section 6-B1 shall be followed.

b. When used without aggregate, the procedure in section 6-B2 shall be followed.

A. Two-Coat Work – Base (first) coat shall be applied with sufficient material and pressure to form good bond on gypsum lath or masonry as the case may be, and to cover well. Then, before this scratch coat has set and without taking its surface, material of the same proportions shall be doubled back to bring the plaster out to grounds struck to a true surface with rod and darby, without application of water and cross raked or scratched to provide a mechanical key for reception of the finish (second) coat. Slow setting plaster shall be accelerated to provide a set (mixed material) of less than 4 hours.

NOTE: Two coat plaster application shall not be used on the following constructions:

1. **Metal lath**, wire lath or paper-backed wire fabric.

2. ½" gypsum lath attached to horizontal supports spaced more than 16" o.c.

3. Gypsum lath on ceilings attached by clips providing edge support only.

4. ⅜" perforated gypsum lath.

B. Three-Coat Work–Scratch (first) coat shall be applied with sufficient material and pressure to form good full keys on metal lath, wire lath, or wire fabric, or good bond on gypsum lath or masonry, as the case may be, and to cover well and then be scratched to a rough surface. Slow setting plaster shall be accelerated to provide a set (mixed material) of less than 4 hours.

Brown (2nd) coat shall be applied after the scratch (1st) coat has set firm and hard, brought out to grounds straightened to a true surface with rod and darby, without application of water and cross raked or scratched to provide a mechanical key for reception of the finish (3rd) coat. To insure full plaster thickness, plaster screeds should be applied to scratch coat prior to application of brown coat.

C. Plastering on Monolithic Concrete Surfaces of walls and columns shall have a scratch coat of bond plaster, followed by a brown coat of gypsum plaster (in the proportions of 100 lbs. of G-P/Bestwall Gypsum Plaster to not more than 3 cu. ft. of sand or perlite) troweled into the scratch coat before it has set. The brown coat shall be brought out to grounds, using a double-back application if required, straightened to a true surface with rod and darby, without application of water and cross raked or scratched to provide a mechanical key for reception of the finish coat.

Surfaces of ceilings shall have a coat of bond plaster, scratched in thoroughly, doubled back, and filled to a true, even surface and left rough (maximum thickness ⅜"), to receive the finish coat.

D. 2" Solid Plaster Partitions (Gypsum lath–studless) shall be scratched in on both sides with ⅜" fast setting plasters (maximum 3 hours) The side away from the temporary bracing shall be browned after both scratch coats have set and partially dried. After this brown coat has set firmly, remove the braces and brown the other side leaving ½" for finish coat to bring wall to full 2" thickness.

E. 2" Solid Plaster Par... (metal lath–studless)

1. Where rib metal ... used, temporary brac... be attached to the rib ... the scratch coat shall ... plied in the flat side ... Where diamond mesh ... lath is used, the temp... bracing may be atta... either side, and the ... coat shall be applied to the ... posite side.

2. Application of brown back-up coats shall be ... cordance with one of the ... lowing methods:

a. The back-up coat sha... applied on the braced ... the lath and shall be fol... by the brown coat ap... over the scratch coat

b. The brown coat shall ... applied over the face of ... scratch coat, then the back ... coat shall be applied on ... braced side of the partitio...

3. After the plaster ap... has set, remove the braces ... complete the brown coat ... this side leaving ... out wall to full 2" thickne...

A. Lime Putty

1. **Bestwall Smooth Fin... Lime** shall be box soaked ... machine mixed with 5 to ... gallons of water for each ... lb. bag and allowed to ... overnight.

2. **G-P/Bestwall Builde... Lime** shall be mixed with ... proximately 5½ gallons ... water per 50 lb. bag. It ... be machine mixed and ... immediately or soaked ... used the next day.

B. Gypsum-Lime Putty Tro... el Finish

NOTE: For smooth tro... finish over lightweight agg... gate basecoat, ½ to 1 cu. ft. ... fine sand or perlite shall ... added for each 100 lbs. of ... sum (Gauging or Keene's C... ment). It also may be us... over sanded basecoat.

1. Gypsum-lime putty trow... finish shall be mixed in t... proportions of 1 part gaug... plaster (calcined gypsum) ... not more than 3 parts of lim... putty by volume plus sand ... perlite.

plaste...

C. Prep... oled Fi... Where ... trowel ... be mix... prepa... once ... materi...

D. Keen... ty Finis... Keene ... mixed ... gypsu... until ... as ne...

1. A... be mix... 100 lb... 100 lb...

2. A... be mix... 100 lb...

3. F... mixed ... 100 lb...

4. F... lime ... of as ... for ... cemen...

5. W... Keen... finish ... into ... lime ... the b...

E. Gy... The ... the ... gypsu... ter ... sand...

F. Sand... This ... the ... lime ... Keen... of ...

9.

The ... plas... coat ... has ... eve... spra...

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plastering specs. cont'd.

C. Prepared Gypsum Trowel Finish

Where prepared gypsum trowel finish is used, it shall be mixed with water to the proper consistency in accordance with the directions of the manufacturer.

D. Keene's Cement-Lime Putty Finish

Keene's cement lime putty finish may be proportioned to obtain a standard hard, medium hard or extra hard finish as follows:

1. A standard hard finish will be mixed in the proportions of 100 lbs of Keene's cement to 200 lbs of dry hydrated lime.

2. A medium hard finish shall be mixed in the proportions of 100 lbs of Keene's cement to 300 lbs. of dry hydrated lime.

3. Extra hard finish shall be mixed in the proportions of 100 lbs. Keene's cement to 25 lbs dry hydrated lime.

4. For any of the above finishes, aggregate shall be added as specified in section 8B2 for each 100 lbs. of Keene's cement.

5. When mechanically mixing Keene's cement-lime putty finish, the water shall be put into the mixer first, then the lime, the aggregate and finally the Keene's cement.

E. Gypsum Sand Float Finish

The finish shall be mixed in the proportions of 1 part of gypsum neat unfibered plaster to not more than 2 parts of sand, by weight.

F. Keene's Cement-Lime Sand Float Finish

This finish shall be mixed in the proportions of 2 parts of lime putty, 1½ parts of Keene's cement and 4½ parts of sand, by volume.

9. Application of finishes

The finish coat shall be applied to a partially dry base coat or to a thoroughly dry base coat which has been evenly wetted by brushing or spraying. The use of excessive water shall be avoided in the application of all types of finish coat plastering.

NOTE: Fine sand or perlite shall be used in smooth trowel finishes. Over gypsum or metal lath bases where lightweight aggregate is used and the aggregate content in the basecoat exceeds 2 cu. ft. per 100 lbs. of gypsum, a sand float, acoustical or other finish shall be used. Smooth Trowel Finishes shall not be used in this place.

A. Trowel Finishes – Trowel Finishes (smooth) shall be applied over the base coat scratched in thoroughly, laid on well, doubled back and filled out to a true, even surface. The general thickness shall be 1/16" to 1/8". The finish shall be allowed to draw a few minutes and then it shall be well-trowelled with water to a smooth finish, free from cat faces and other blemishes or irregularities.

B. Float Finishes – Float finishes shall be applied over the base coat, scratched in thoroughly, laid on with a trowel to an even surface, and then floated (with wood, carpet, cork, rubber or other type floats, depending on the texture desired) to a true, even surface free from slick spots or other blemishes.

C. Special Plasters – Special Plasters shall be applied in accordance with the directions of the Manufacturer.

DENS-COTE™ SYSTEM

1. Use G-P/Bestwall Dens-Cote Gypsum Base (glass fiber reinforced) ½" thick by 4' wide with tapered edges and 8', 10' or 12' long. Apply ½" Dens-Cote Gypsum Base with ring shank nails 8" o.c. for side walls and 7" o.c. for ceilings, to framing members spaced a maximum of 24" o.c. For fire resistive ratings and other special installations ½" and ⅝" Firestop and Dense Cote base are available. For these installations use a fastener, with a ¾" to ⅞" penetration in wood framing members or fastener required for rating.

2. Use 2½" wide glass fiber mesh to reinforce all flat joints and angles. Use 1"x1" perforated metal beads for corners. For best results apply the mesh by embedding it with Dens-Cote Smooth Finish. This is accomplished by troweling a layer of Dens-Cote Smooth Finish over the joint area and pressing the glass fiber mesh into the Dens-Cote with a trowel. The mesh may be first stapled to the Dens-Cote Gypsum Base, if desired. In any case, the mesh must be embedded with Dens-Cote before the over-all application begins. At the same time, fill all metal corner beads. These areas may be allowed to set before the over-all application is commenced. This preliminary embedding of the joints keeps the glass fiber mesh from wrinkling, promotes uniform takeup, and assures positive keying of Dens-Cote Smooth Finish into the mesh. Corner beads designed for thin coat applications (not regular wallboard corner bead) should be set to regular plaster thickness at 3/32" minimum. Nail or screw corner bead to framing member.

3. Trowel the first coat tightly over the entire wall or ceiling surface. This application should be uniform and about 1/16" thick.

4. As soon as the first coat has taken up (5-10 mins.), double back with a leveling coat, which will bring the total thickness applied to a minimum of 3/32".

5. †After the second coat has taken up (15-20 mins.), begin final troweling, using water if required. The final troweling must be completed before the set takes place, as evidenced by darkening of the surface.

6. Make joinings at angles. Ceilings should be done first, then sidewalls.

7. Coverage of Dens-Cote Smooth Finish is 18-20 square yards (⅛" thick) per 100 lb bag.

Base Plaster. This is accomplished by troweling a layer of Dens-Cote Base Plaster over the joint area and pressing the glass fiber mesh into the Dens-Cote with a trowel. The mesh may be first stapled to the Dens-Cote Base, if desired. In any case, the mesh must be embedded with Dens-Cote before the overall application begins. At the same time, fill all metal corner beads. These areas may be allowed to set before the overall application is commenced. This preliminary embedding of the joints keeps the glass fiber mesh from wrinkling, promotes uniform takeup, and assures positive keying of Dens-Cote Base Plaster into the mesh.

2. Trowel the Dens-Cote Base Plaster tightly over the entire wall or ceiling surface. This application should be uniform —about ⅛" thick.

3. As soon as Dens-Cote Base Plaster has taken up sufficiently, straighten and butt to not trowel smooth. Leave rough so that finish coat will key properly.

4. Apply finish coat as soon as possible after basecoat has set.

5. Finish with lime putty and gauging for a conventional smooth finish or use any sand float textured finish.

6. If a hard durable smooth finish is desired, use Dens-Cote Smooth Finish.

1. Maintain a room temperature of at least 55°F during working area 24 hours prior to, during and after application.

2. In hot weather, reduce drafts and ventilation by covering doors and windows openings.

3. Plan the work so that it proceeds in an orderly fashion from one end or side of surface to the other to promote a progressive uniform takeup.

†A specially formulated Dens-Cote Texture [illegible] is recommended where swirl patterns or textured surfaces are desired. The application procedure does [illegible] should be followed [illegible] final coat. For the best [illegible] take up on the [illegible] dependent on the [illegible] in general, the [illegible] the longer the [illegible] should the Dens-Cote [illegible] has commenced [illegible] accomplished [illegible] or other suitable [illegible]

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G-P/BESTWALL

Advantages of the gypsum wallboard system

G-P/Bestwall Gypsum Wallboard consists of a glass fiber *reinforced core of gypsum* rock enclosed between two layers of tough paper. The durable cream face paper is folded around the long edges to reinforce and protect the core. The ends are square cut and smooth finished. A strong gray paper is on the back side.

There is approximately 1 mile of glass fibers per sq. ft. in $\frac{1}{4}$" G-P/Bestwall Gypsum Wallboard. This is an important and unique factor to consider in specifying G-P/Bestwall drywall construction.

structural strength

One of the finer qualities of G-P/Bestwall Gypsum Wallboard is its structural strength. When properly applied in the specified manner it readily resists flexural stresses and will not crack or sag.

G-P/Bestwall Gypsum Wallboard is flexible enough to conform to moderately curved surfaces.

fast application

G-P/Bestwall Gypsum Wallboards are large sized, and lightweight panels. Because of their simplicity in erection the paneling goes up very fast.

Wallboards may be "scored and snapped" or cut to the desired size and shape.

Large size sheets of $\frac{1}{2}$" or $\frac{5}{8}$" Regular or Type "XXX" Firestop Gypsum Wallboard may be applied horizontally or vertically. Panels pre-cut to ceiling height.



fire protection

The solid core of all G-P/Bestwall Gypsum Wallboard is incombustible. Gypsum will not transfer heat in excess of 212° F. until all its water of crystallization has been driven off in the form of steam.



Single or multiple layers may be applied on each side of wood framing, metal framing and/or gypsum studs. Fire resistive ratings 1 hour to 3 hour ratings. Various types of sound panels may be used in conjunction with these fire resistive constructions. An incombustible sound panel must be used in an incombustible assembly.

(For special fire resistive rating and sound characteristics, details, refer to Technical Data pages F/22 thru F/25.

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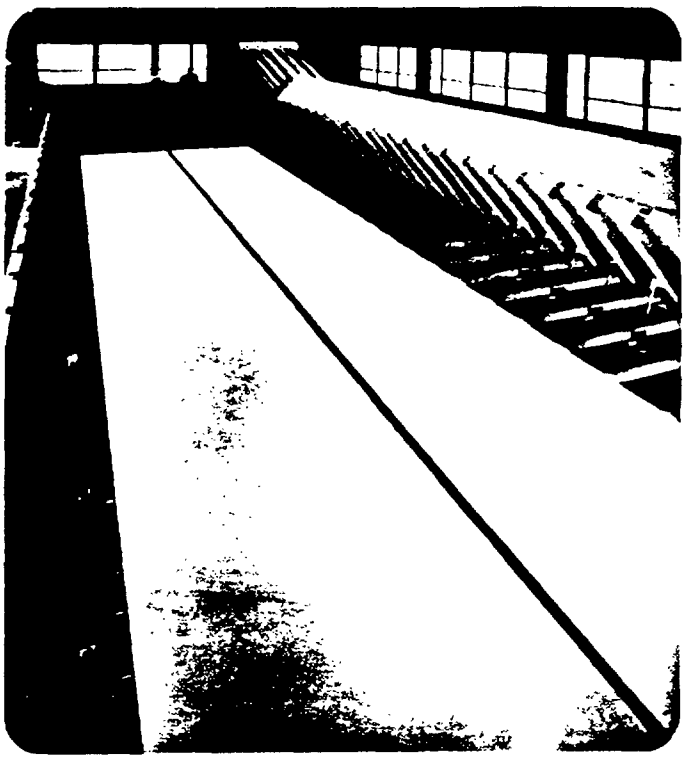
fast
decorating

G-P/BESTWALL EXCLUSIVE

glass fiber
reinforcement







Literally miles of glass fibers have been mixed into the gypsum core of all G-P/Bestwall Wallboards. This is an extremely important factor to consider when specifying wallboard.

Glass fiber filaments of uniform strength and length are as strong as high strength steel of the same size.

The addition of these glass fibers adds greater resilience, strength and handling ease to the wallboard. Should the water of crystallization of the gypsum mixed be driven off in the form of steam by excessive heat, the remaining fiber glass content will help the wallboard remain rigid to a degree.

For further information write directly to the Georgia-Pacific, Bestwall Gypsum Division, or consult nearest district office listed on the back of this catalog.

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in this section

wallboards	**2a**
backers	**2b**
ratings	**2c**
predecorated panels	**2d**
construction systems	**2e**
wood stud part, metal stud partitions laminated part.	**2f**
accessories	**2g**
joint concealment	**2h**

G-P/BESTWALL
Gypsum wallboards

Regular

G-P/Bestwall Regular Gypsum Wallboard is manufactured with Tapered or Square Edges and faced with a strong, cream-colored paper which will take any type of decorative treatment. The gypsum core is reinforced with miles of glass fibers. The



gray back paper is as strong as the face paper. ½" and ⅝" wallboard with Tapered Edges are recommended for single layer application in new construction. Tapered edges are designed to be reinforced by the G-P/Bestwall Joint Systems for smooth, seamless surfaces.

Square Edges are recommended for use where exposed joints are acceptable. Increased resistance to fire exposure and sound transmission depend upon greater board thickness used. (See Technical Data Chart, p. 22 to 25.)

Wood stud load-bearing partitions faced on both sides with ½" G-P/Bestwall Gypsum Wallboard have a fire endurance of 40 minutes, as tested in accordance with E-119 Standard Method of Fire Tests of Building Construction and Materials. When faced with ⅜" G-P/Bestwall, the fire endurance is 25 minutes.

Advantages

⅜" Gypsum Wallboard is used primarily in repair and remodeling work. Light weight permits easy handling and application. It is also recommended for use in double-layer laminated gypsum wallboard construction.

¼" Gypsum Wallboard is a lightweight economical gypsum product for application directly over existing walls and ceilings and for use on curved surfaces and in display work.

SIZES

Length 6' to 16' (in even feet)

Width 4'

Thicknesses ¼", ⅜", ½", ⅝"

Edges Tapered, Square Beveled (special order only)

G-P/Bestwall Gypsum Backer, designed for first or base layers in field lamination of gypsum wallboards, acoustical tile and other compatible materials with adhesives, provides low cost, level surfaces for further decorative treatments. It may be applied over loadbearing or non-loadbearing wood or metal framing with nails, screws or staples.

SIZES

Length 8' longer on order

Width 2' and 4'

Thicknesses ⅜", ½", ⅝"

Edges Square, T&G

Insulating

G-P/Bestwall Insulating Gypsum Wallboard is regular gypsum wallboard, also reinforced with glass fibers for greater strength, with bright aluminum foil laminated to the back surface.



In a single layer application it provides the advantages of regular gypsum wallboard plus giving effective insulation and efficient vapor barrier in one product. A separate and continuous vapor barrier automatically goes up on the warm side of the wall when G-P/Bestwall Insulating Gypsum Wallboard is applied.

The aluminum foil, facing a ¾" minimum air space, reflects 90% of radiant heat, providing insulation qualities equal to ½" of fiberboard insulation (tested by U. S. Bureau of Standards). Insulating Gypsum Wallboard is available with square or tapered edges.

Panels must be installed with foil side against the studs. To have reflective insulation value, FHA requires the foil face a minimum air space of ¾".

Miles of glass fibers are dispersed in the gypsum core to provide added resilience, strength and handling ease. The large lightweight panels handle easily and can be scored and snapped to desired size.

SIZES

Length 6' to 16' (in even feet)

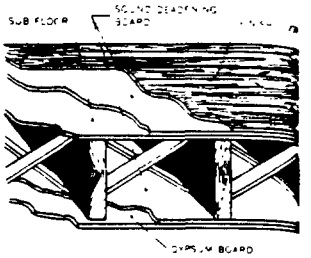
Width 4'

Thicknesses ⅜", ½", ⅝"

Edges Tapered, Square

Sound Deadening

The Bestwall Sound Deadening System is a low cost system designed for use in wall and floor and ceiling systems where a reduction in the passage of sound from room to room is desired.



Bestwall Sound Deadening Board is ideal for residential or apartment type construction. Bestwall Sound Deadening Board gives up to 51 STC in various isolation assemblies. In floor and ceiling fire-sound deadening board may be used over the joists between finish floor and sub floor or below joists with fasteners fastened through face gypsum wallboard and Sound Deadening Board into joists.

BESTWALL SOUND DEADENING BOARD Square Edge: thickness ½", width 4', length 8'. ASTM Standards C-208-60 Class A Federal Specifications LLL-I-535 Class A

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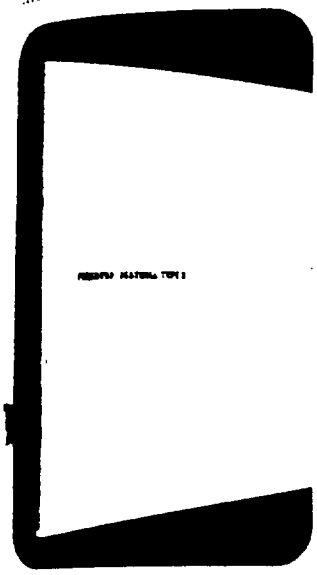
For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling"

New, improved "FIRESTOP"™

New Improved G-P/Bestwall Firestop face marked Type "XXX" combining all the advantages of the original gypsum wallboard in the original Type "X" gypsum wallboard with a gypsum core with unexpanded vermiculite and greater glass fiber reinforcement and a lower weight than



ever before gives increased fire protection, strength and better nailing qualities. The vermiculite balances gypsum shrinkage by expanding when exposed to heat, while the textile glass filaments keep the core intact even after its chemically combined water has been released, giving a thermal stabilized core.

The original Type "X" gypsum wallboard provided a full 1 hour fire retardant rating in single layer application over incombustible (metal) and combustible (wood) framed walls and partitions and floor and ceiling assemblies. Now through greater glass fiber reinforcement, its fire resistance has been increased (see tabulations Page F/22 thru F/25 and the weight substantially reduced.

Economical – Large, lightweight panels handle easily and can be scored and snapped or cut to desired size.

Low Cost – New Improved G-P/Bestwall Firestop is one of the lowest cost fireproofing materials available today.

Crack-Resistance – Resists cracks due to framing movements, vibrations and settling. Unaffected by humidity or extremes in temperatures.

Strength – Resists crosswise stresses. 5/8" Firestop has flexural strength of 220 to 270 lbs. as compared to ASTM minimum requirements of 150 lbs. for 5/8" regular gypsum wallboard and a Federal Specifications minimum requirement of 110 lbs. for 1/2" regular gypsum wallboard.

Official Sound Transmission Tests of various assemblies make possible partitions with Sound Transmission Class (STC) of 34 to 58. 5/8" G-P/Bestwall Firestop over 1/2" G-P/Bestwall Sound Deadening Board each side of wood studs 16" on center has been proven in a full scale fire test to have a 1-hour fire resistance. This same construction has an STC of 46.

G-P/Bestwall Firestop is recommended where extra fire-resistance is required in residential, commercial and public buildings. For years 5/8" thickness has provided one hour fire resistance in single layer application on both walls and ceilings over wood or steel, while 1/2" thickness has provided 45 minutes fire rating in single layer application when applied over wood framing, for both walls and ceilings. The New Improved Firestop has greater fire resistance and the 1/2" Firestop will provide 1 and 2 hour floor and ceilings in single layer application.

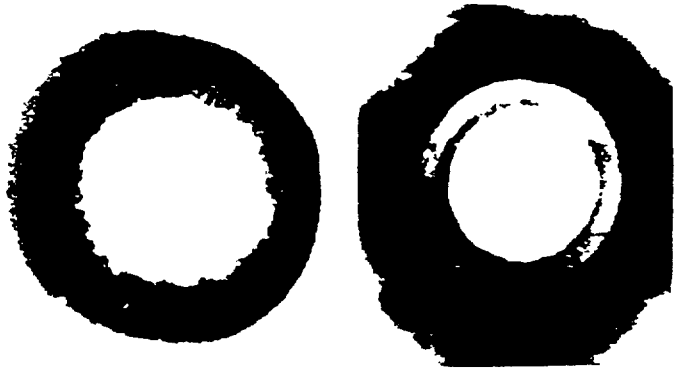
See the tabulation on pages F/22 thru F/25 for greater fire resistance in single layer application for both 1/2" and 5/8" thick G-P/Bestwall Firestop.

The extra fire protection offered by G-P/Bestwall Firestop is built right into the core through the use of specific amounts of incombustible glass fibers and unexpanded vermiculite which result in a thermal stabilized core.

1/2" and 5/8" G-P/Bestwall Firestop qualify for Building Code acceptance in the constructions as shown in the table on pages F/22 thru F/25. G-P/Bestwall Firestop is listed by Underwriters and carries the UL Label for 45 minutes, 1, 2, 3 hour Fire Resistance in various Designs and for Fire Hazard Classification of 10-15.

G-P/Bestwall Firestop in various assemblies meets Building Code requirements from 45 minutes to 3 hours for interior wall and ceiling construction in buildings of all types from highly incombustible to wood frame; and for various occupancies of residential, public and commercial character.

For information regarding approvals of construction assemblies – refer to Technical Data – Pages F/22 thru F/25



FIRESTOP WALLBOARD

REGULAR WALLBOARD

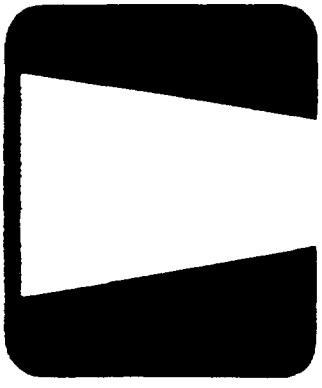
SGP 0022696

G-P/BESTWALL

Gypsum backerboards

5/8" Firestop

G-P/Bestwall 5/8" Firestop Gypsum Backer is used as a backing for decorative surface treatments of acoustical plasters, tile, plywood and various veneers. A single layer application of 5/8" G-P/Bestwall Firestop Gypsum Backer on both sides of wood or steel framing, enables load-bearing or non-loadbearing wall assemblies to resist temperatures rising to 1700° F in the ASTM standard time temperature curve for one hour.



Firestop Gypsum Backer consists of a gypsum core with unexpanded vermiculite, reinforced with literally miles of high tensile strength glass fibers, firmly bonded to a fibrous grey paper on both sides.

Column fire proofing

Fireproofing with G-P/Bestwall Gypsum Wallboard provides a fast, efficient and economical method of protecting steel columns.

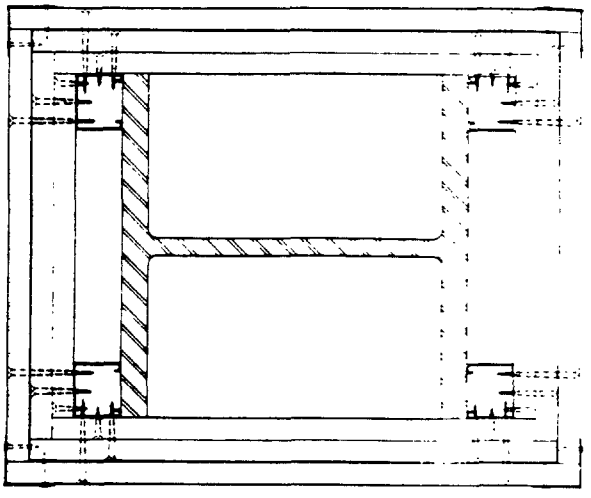
Fire resistive assemblies of two, three and four hours are obtainable depending upon the number of layers of 5/8" GP/Bestwall Firestop used. The layers are held in place by a combination of screws and metal studs. The two, three and four hour fire rated assemblies of Firestop have passed Official Fire Tests conducted by the Underwriters' Laboratories.

Fire Resistive—3 and 4 hour fire resistive protection for steel columns can be obtained with three and four layers respectively of 5/8" G-P Bestwall Firestop and 2 hour fire resistive protection can be obtained with two layers of 5/8" Firestop. Where necessary 1 hour of fire protection can be obtained with two layers of 1/2" G-P/Bestwall Gypsum Wallboard and 1 1/2 hour protection with 3 layers of G-P/Bestwall Gypsum Wallboard.

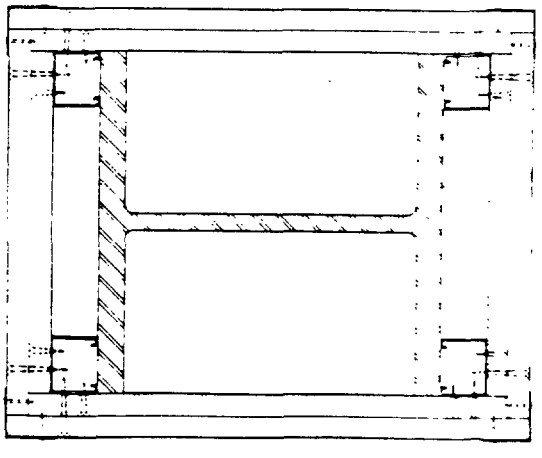
Economy—Low material cost, speed of erection and minimum number of materials provides lower construction costs.

Lighter—As compared to other types of fireproofing, a dead load saving of from 50 to 75% can be realized with G-P/Bestwall Firestop Column Fireproofing.

Speed of Erection—G-P/Bestwall Firestop Gypsum Wallboard can be installed quickly and easily when used for column fireproofing following G-P/Bestwall details. Minimum amount of wire and adhesives are used.



ILLUSTRATION—THREE-HOUR fire rated steel column assembly 5/8" G-P/Bestwall Firestop.



ILLUSTRATION—TWO-HOUR fire rated steel column assembly with 5/8" G-P/Bestwall Firestop.

SIZES

Length 8' to 16'

Width 2', 4'

Thickness 5/8"

Edges Tongue-and-Groove, Square

SGP 0022697

Tile Backer Board

Water Resistant Wallboard

G-P/Bestwall Tile Backer Board is a water-resistant gypsum product with a light blue face paper, designed for use as a base for the adhesive application of ceramic, metal or plastic tile. The gypsum core consists of incombustible gypsum rock, reinforced with glass fibers, combined with an emulsion giving high water resistance. This new G-P/Bestwall product is ideal for bathrooms, kitchens, powder rooms and all high moisture areas.









G-P/Bestwall Tile Backer Board can be erected as easily as wallboard and requires no finishing of joints or nail heads with joint treatment nor further waterproofing under tile applied adhesively. Tile Backer Board is sealed at cut edges with a special 2½" wide self-adhering vinyl tape. Approximately one roll per msf. wallboard. Also used over any joints under tile.

Water-Resistant—Core is specially treated with a water resisting emulsion and the paper is treated in manufacturing to make G-P/Bestwall Tile Backer Board more water resistant.

Economical – Taping joints and cut edges with vinyl pressure-sensitive tape can save time and money.

Ease of Application – G-P/Bestwall Tile Backer Board can be applied like regular gypsum wallboard. Cut edges can be sealed easily with vinyl tape and no waterproofing primer is necessary before applying the tile.

Glass Fiber Reinforced – Miles of glass fiber filaments of uniform strength and length are dispersed in the gypsum core to provide greater shock resistance and greater compressive strength.

Convenience Outside Tile Area – For areas not covered by tile, joints and nail heads may be treated as those in regular wallboard and the surface primed and painted with adjacent areas of regular wallboard.

For fire rated partitions between bathrooms or interior areas subject to moisture use ⅝" Firestop Tile Backer proven by Underwriters' Laboratories in a 1-Hour assembly over wood studs.

1. Scope of work

A. G-P/Bestwall Tile Backer Board shall be applied, as a base for (ceramic) (metal) (plastic) tile, to all wall areas where such tile serves as the finished decorative surface (and/or water barrier).

B. The contractor shall supply all tools, materials, and labor necessary and required to complete all work included in this section.

C. Adequate blocking for (tub) (prefabricated receptor) (sub pan) etc., is covered in section on Framing. (See Architect's Checklist below.)

D. All materials shall be new, delivered to the job site in original unopened containers or bundles, stored in an out-of-the-way place, protected from exposure to the elements, protected from damage by tampering, and used in strict accordance with the manufacturer's directions.

2. Materials

A. ½" thick G-P/Bestwall Tile Backer Board, manufactured by G-P/Bestwall Gypsum Company.

B. G-P/Bestwall Vinyl Tile Backer Board Tape, marketed by G-P/Bestwall Gypsum Company.

C. GWB =54 1¼" ring shank nails or equal.

D. Screws, if used as an alternate method of fastening, shall be 1" long drywall screws.

E. Temporary strip or shim of wood or a specially designed permanent metal section.

3. Workmanship

A. All framing members shall be rigidly fastened, plumb, and true.

B. Installation of (tub) (prefabricated receptor) (sub pan) shall have been completed prior to erection of Tile Backer Board.

C. Studs shall be furred out, as necessary, around (tub) (prefabricated receptor) (sub pan) so that the face of the water-resistant wallboard, when installed, shall be flush with the upper lip of the (tub) (prefabricated receptor) (sub pan).

D. Tile Backer Board shall be applied horizontally so as to minimize butt joints with paper bound edge along edge of (tub) (prefabricated receptor) (sub pan.)

E. The contractor shall use a temporary strip or shim between the edge of Tile Backer Board and the lip of the (tub) (prefabricated receptor) (sub pan). When the temporary strip or shim is removed, a clearance of ¼" shall exist between the edge of the Tile Backer Board and the lip of the (tub) (prefabricated receptor) (sub pan). A metal section especially designed for this purpose may be attached to the framing before the Tile Backer Board is erected.

F. Tile Backer Board shall be fastened to side walls with nails spaced 8" o.c. Where side walls are to be faced with ceramic tile thicker than ¼", nails shall be spaced 4" o.c.

G. Tile Backer Board shall be fastened to ceilings with nails spaced 7" o.c. (adhesive application of tile to wallboard ceilings is not recommended.)

H. If adhesive nail-on application is used as an alternate method of fastening, the contractor shall use not less than 2 nails per board width per support.

I. Where it is necessary to cut Tile Backer Board, the resulting exposed core shall be covered over with vinyl tape treatment prior to erection. In addition, where pipe holes occur, the contractor shall apply short lengths of vinyl tape to cover the exposed core. This can be accomplished by applying strips of tape through the holes from face of board to back, to completely seal exposed core in perimeter of openings. This shall be done in a neat workmanlike manner. The Tile Backer Board shall then be placed in position. Following erection of Tile Backer Board, the contractor shall apply vinyl tape over all edge joints. In addition, any exposed core still remaining such as nail holes, damaged face areas, openings around plumbing fixtures, soap dishes, grab bars, towel racks —or anywhere else, shall be covered with vinyl tape.

J. Vinyl tape shall not be applied to side walls and ceilings above the tile line. Tile Backer Board above the tile line shall receive standard joint treatment. Any vinyl tape extending above the tile line shall be cut and peeled from the Tile Backer Board. Such care shall be taken as is necessary to avoid damage to the face paper. This area shall be primed and painted as other painted areas.

Tile Backer Board SIZES

Length 8', 11', 12'
Width 4'
Thickness ½"
Edge Tapered

SGP 0022698

Technical Data Gypsum Wallboard Construction
Walls and Columns

STUD SIZE	THICKNESS	WEIGHT LB./SQ. FT.	WALL SURFACE	SOUND TRANSMISSION CHARACTERISTICS — INDIVIDUAL FREQUENCIES—CPS 125	250	500	1000	2000	4000	SOUND TRANS. CHAR. STC 1	9 FREQ. AVG. 2	SPEECH PRIVACY RANGE 3	TEST REF.	FIRE RESIST RATING 4	TEST REF.	BU... APPR...
NAILABLE STEEL STUDS (Loadbearing 3⅝"—24" o.c.)																
3⅛"	4⅛"	6.5	⅝" Bestwall Firestop, 1 layer each side	—	—	—	—	—	—	47	44	—	—	1 Hr	T-209	
SCREW TYPE STEEL STUDS (Non-loadbearing 1⅝"—2½"—3⅝"—24" o.c.)																
1⅝"	2⅛"	5.2	⅝" Bestwall Firestop, one layer each side	25	29	35	35	40	41	44	43	33	36	44	35	36	—	TL-62-72	1 Hr	T-3316	
1⅝"	2⅛"	0.0	⅝" Bestwall Firestop, plus 1½" fiber glass insulation in stud space	21	32	36	43	49	53	55	53	43	44	49	44	42	50	OR-64-81	1 Hr	EST	
1⅝"	3⅛"	8.4	⅝" Bestwall Firestop, 1 layer one side, 1½" fiber glass insulation in stud space, 1 layer ⅝" Bestwall Firestop over 1" core board other side	30	38	43	49	51	54	55	54	51	50	53	52	47	52	OR-64-61	1½ Hr	EST	
1⅝"	3⅛"	7.2	⅝" Bestwall Firestop, one layer other side two layers, 1½" fiber glass insulation in stud space	29	37	40	46	51	54	57	54	46	48	53	48	46	52	OR-64-80	1½ Hr	EST	
2½"	3½"	—	½" Bestwall, one layer each side	14	23	24	30	34	40	47	50	48	38	41	35	33	42	OR-65-2	45 Min.	EST	
2½"	3½"	4.3	½" Bestwall Firestop, one layer each side, 2" fiber glass insulation in stud space	18	26	33	40	47	52	56	55	55	45	45	41	41	55	OR-66-5	1 Hr	EST	
2½"	3¼"	—	⅝" Bestwall Firestop, one layer each side vinyl coverer (Eternawall)	14	19	23	30	33	39	45	45	45	40	42	35	33	41	OR-64-65	1 Hr	T-2998	
2½"	3¼"	—	⅝" Bestwall Firestop, one layer each side	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	T-2069	
2½"	4"	4.1	½" Bestwall Firestop, one layer, other side, one layer over 7/16" fiber glass N.S. Board, plus 2" fiber glass insulation in stud space	22	24	28	39	45	49	56	57	57	51	49	40	41	53	OR-65-16	1 Hr	T-3500	
2½"	4⅞16"	—	½" Bestwall Firestop, one layer over 7/16" fiber glass N.S. board, other side two layers ½" Firestop	27	29	34	43	48	51	57	58	58	54	54	46	45	54	OR-65-17	1½ Hr	EST	
2½"	4⅞16"	—	½" Bestwall Firestop, two layers over 7/16" fiber glass N.S. board, other side two layers ½" Firestop	31	34	39	47	51	54	58	59	60	56	57	51	48	56	OR-65-18	2 Hrs	EST	
2½"	4"	6.3	½" Bestwall Firestop, one layer, other side two layers, plus 2" fiber glass insulation in stud space	25	33	40	46	52	57	60	60	59	52	52	48	47	57	OR-66-6	1½ Hr	EST	
2½"	4"	7.0	½" Bestwall Firestop, one layer over ¼" gypsum sound deadening board both sides screw attached (no adhesive)	28.8	29.1	35.8	38.9	45.6	49.4	52.1	57.5	61.4	60.5	57.2	45	44.3	54.4	BW-16-FT	1 Hr	T-3854	
2½"	4"	7.12	½" Bestwall Firestop, one layer over ¼" gypsum sound deadening board, screw attached, both sides (no adhesive), plus 2" fiber glass friction fit in stud space	33	32	42	48	54	53	54	59	63	62	59	50	48.7	57.5	BW-17-FT	1½ Hr	EST	
2½"	4¼"	8.12	⅝" Bestwall Firestop, one layer over ¼" gypsum sound deadening board, both sides, screw attached (no adhesive), plus 2" fiber glass friction fit in stud space	32	39	44	48	55	55	57	60	63	62	60	54	50.2	58.7	BW-18-FT	1½ Hr	EST	
2½"	4½"	8.0	½" Bestwall Firestop, two layers each side (for sound—add 2" fiber glass insulation in stud space).	24	38	45	49	54	54	51	56	55	53	55	47	45	54.3	BW-12-FT	2 Hrs	T-3018	
2½"	4⅜"	7.5	⅝" Bestwall Firestop, one layer, other side—two layers	28.5	28	32	36.5	43	47.5	51	51.5	44	45	50	43	40	46	OR-53-2	1½ Hr	EST	

SGP 0022699

 For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling"

Technical Data Gypsum Wallboard Construction
Walls and Columns

THICKNESS	WEIGHT LB SQ. FT.	WALL SURFACE	SOUND TRANSMISSION CHARACTERISTICS — INDIVIDUAL FREQUENCIES—CPS 125	250	500	1000	2000	4000	SOUND TRANS. CHAR. STC 1	9 FREQ. AVG. 2	SPEECH PRIVACY RANGE 3	TEST REF.	FIRE RESIST. RATING 4	TEST REF.	MODEL BUILDING CODE APPROVALS 5
SCREW TYPE STEEL STUDS (Non-loadbearing 2½"—3⅝"—24" o.c.) Cont'd.															
4¼"	5.7	⅝" Bestwall Firestop, one layer over ⅛" fiber glass N.S. board, both sides	26	29	36	44	48	53	59	58	52	52	57	46	45	54	OR-65-13	1 Hr	EST	—
5⅛"	—	⅝" Bestwall Firestop, one layer over 1/16" fiber glass N.S. board, other side, two layers over 1/16" fiber glass N.S. board	32	36	41	48	51	55	60	59	56	55	60	52	49	56	OR-65-14	1½ Hr	EST	—
5⅛"	—	⅝" Bestwall Firestop, two layers over 1/16" fiberglass N.S. board, both sides	35	40	42	49	52	56	60	61	58	57	61	55	50	57	OR-65-15	2 Hrs.	EST	—
5"	10.4	⅝" Bestwall Firestop, two layers, both sides	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs.	T-255	AB—
4⅛"	6.0	⅝" Bestwall Firestop, one layer each side	20.5	26	31	37	41.5	46	50	50.5	42	40	48	42	38	45	OR-63-11	1 Hr.	F-2016	ABC
5½"	8.0	⅝" Bestwall Firestop, one layer, other side two layers	24	25	33	40	46	49	52	51	44	45	50	43	40	48	OR-64-32	1½ Hr	EST	—
5½"	8.0	⅝" Bestwall Firestop, one layer, other side two layers, plus 3" fiber glass insulation in stud space	31	37	45	49	52	55	57	55	50	48	51	50	47	53	OR-64-51	1½ Hr	T-3126	AB—
5⅛"	5.75	⅝" Bestwall Firestop, one layer, other side, one layer over ½" Bestwall sound deadening board	24	26	34	40	47	51	55	55	48	47	53	44	42	50	OR-65-10	1 Hr	EST	—
5⅛"	—	⅝" Bestwall Firestop, one layer over ½" Bestwall sound deadening board, both sides	28	32	39	46	52	56	57	60	55	55	59	49	47	56	OR-65-11	1 Hr.	EST	—
6⅛"	11.0	⅝" Bestwall Firestop, two layers each side	28	29	36	44	48	52	55	53	47	51	55	47	44	51	OR-64-52	2 Hrs	EST	—
6"	8.8	⅝" Bestwall Firestop, two layers, other side one layer over ½" fiber glass N.S. board	25	33	41	47	52	54	56	55	50	51	55	48	46	53	OR-64-34	2 Hrs.	EST	—
6⅛"	11.1	⅝" Bestwall Firestop, two layers both sides, plus 1½" fiber glass insulation in stud space	36	41	49	51	53	55	56	55	50	52	55	52	50	54	OR-64-50	2 Hrs	EST	—
6⅛"	10.4	⅝" Bestwall Firestop, two layers, (face layer —Eternawall)	31	37	45	49	52	55	57	55	50	48	51	50	47.4	—	—	2 Hrs	T-2406	ABC
SLIP JOINT AT CEILING (2½"—24" o.c.)																	**SGP 0022700**			
3½"	4.3	½" Bestwall Firestop, one layer each side, 2" fiber glass insulation in stud space	18	25	33	39	46	50	53	53	52	43	44	40	40	50	OR-66-7	1 Hr	EST	—
3½"	3.8	½" Bestwall, one layer each side	15	21	26	32	35	42	47	49	46	39	43	37	34	43	OR-65-1	45 Min	EST	—
DOUBLE ROW STUDS (Non-loadbearing 1⅝"—24" o.c. — ½" x 12" Gypsum spacers fastened on Quarter points)																				
8"	4.1	½" Bestwall Firestop, one layer over 1/16" O.C. fiber glass N.S. board, both sides	28	33	39	44	49	52	53	56	55	55	56	49	45	53	OR-65-20	1 Hr	EST	—
8½"	—	½" Bestwall Firestop, one layer over 1/16" O.C. fiber glass N.S. board, other side two layers ½" Firestop over 1/16" O.C. fiber glass N.S. board	34	37	40	45	49	52	53	56	56	57	59	51	47	54	OR-65-21	1½ Hr	EST	—
9"	—	½" Bestwall Firestop, two layers over 1/16" O.C. fiber glass N.S. board both sides	37	41	42	48	50	52	53	56	57	58	61	54	49	54	OR-65-22	2 Hrs	EST	—

Technical Data Gypsum Wallboard Construction Walls and Columns

STUD SIZE	THICKNESS	WEIGHT LB./SQ. FT.	WALL SURFACE	SOUND TRANSMISSION CHARACTERISTICS — INDIVIDUAL FREQUENCIES—CPS 125	250	500	1000	2000	4000	SOUND TRANS. CHAR. STC	9 FREQ. AVG.	SPEECH PRIVACY RANGE	TEST REF.	FIRE RESIST. RATING	TEST REF.	BU APPR.
SEMI-SOLID GYPSUM PARTITIONS (Non-loadbearing 1" x 6"—2½" x 3"—¾" x 6" Laminated Gypsum Ribs—24" O.C.																
	BESTWALL HUMMER "B"															
1"x6"	2¼"	7.2	⅝" Bestwall Firestop, one layer each side.	21	17	27	34	36	40	39	43	36	36	39	35	32	38.3	BW-8-FT	1 Hr.	UL 10
2½"x3"	4¼"	7.2	⅝" Bestwall Firestop, one layer, other side, one layer screwed to resilient channels. Plus 2" fiber glass insul. in stud space.	28	39	43	47	50	54	58	57	53	53	57	51	48	54	OR-65-19	1 Hr.	EST
2½"x3"	4¼"	7.9	⅝" Bestwall Firestop, one layer over ½" Bestwall S.D. Board—both sides.	28	36	43	46	50	54	58	59	58	57	59	51	48	56	OR-64-57	1 Hr	T-3128
	BESTWALL HUMMER "C"															
¼"x6"	2¼"	7.8	⅝" Bestwall, two layers each side.	23	23	31	36	36	38	39	39	36	36	41	37	34	37	TL-60-131	1 Hr	T-1276
SOLID GYPSUM BOARD PARTITIONS (Non-loadbearing)																
	2"	8.1	½" Bestwall, one layer each side, 1" Coreboard	—	—	—	—	—	—	—	—	—	—	—	37	—	—	—	2 Hrs	G.A.
	2"	8.1	½" Bestwall Firestop, one layer each side, 1" Coreboard	—	—	—	—	—	—	—	—	—	—	—	39	—	—	—	2 Hrs.	G.A.
	2¼"	9.1	⅝" Bestwall Firestop, one layer each side, 1" Coreboard	—	—	—	—	—	—	—	—	—	—	—	36	—	—	—	2 Hrs	EST
DOUBLE SOLID GYPSUM BOARD PARTITIONS (Non-loadbearing)																
	4"	13.4	⅝" Bestwall Firestop, 2 layers each side, 1" Rib Coreboard	29.5	31	34.5	37	38	36.5	35	—	42	—	51.5	—	37	—	TR-57-42	2 Hrs.	UL 7
	5"	13.4	⅝" Bestwall Firestop, 2 layers each side, 1" Rib Coreboard	32	34	37.5	39.5	39.5	38	38.5	—	46.5	—	54	—	40	—	TR-57-43	3 Hrs	UL 5
	6"	9.5	⅝" Bestwall over ⅝" Bestwall Firestop, each side, 1" Rib Coreboard	—	—	—	—	—	—	—	—	—	—	—	—	—	—	OR-64-39	1½ Hrs.	UL
	6"	13	½" Bestwall over 1" Coreboard, each side of 3" air space	31	36	41	47	49	49	49	47	51	56	60	47	46	52	OR-64-39	2 Hrs	T-2575
TRIPLE SOLID GYPSUM BOARD PARTITIONS (Non-loadbearing)																
	6"	17	½" Bestwall, 1 layer over 1" Coreboard both sides 3" air space with 1" Coreboard centered in air space	29	34	40	45	47	50	54	55	59	60	60	51	46	54	OR-64-58	3 Hrs	EST
	6"	17.2	½" Bestwall, 1 layer over 1" Coreboard each side of 3" air space with 1" Coreboard centered in air space and fiber glass insulation in space on 1 side	36	45	49	53	55	56	56	58	60	62	63	58	53	58	OR-64-59	3 Hrs	EST
PARTITIONS, METAL FACED (Non-loadbearing)																
	ELWIN G. SMITH AND CO. INC.		½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs.	UL 12
	WALCON CORP.		½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	UL 10
	R. C. MAHON CO.		½" Bestwall Firestop, five layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	UL 9
			½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	UL 5
			½" Bestwall Firestop, 2 layers, each side	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3 Hrs	UL 8
			½" Bestwall Firestop, five layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3 Hrs	UL 7
	H. H. ROBERTSON CO.		½" Bestwall Firestop, 2 layers, each side	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	UL 8
			½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	UL 25
			½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	UL 22
			½", ⅝" Bestwall Firestop, four layers, ½" F.S. and one layer ⅝" F/S	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3 Hrs	UL 9
STEEL COLUMN FIREPROOFING																
			½" Bestwall, 2 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	G.A.
			½" Bestwall, 3 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1½ Hr	G.A.
			⅝" Bestwall Firestop, 2 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	EST
			⅝" Bestwall Firestop, 2 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	UL 8
			⅝" Bestwall Firestop, 3 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3 Hrs	UL 13
			⅝" Bestwall Firestop, 4 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4 Hrs	UL 26

For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling."

SGP 0022701

Technical Data Gypsum Wallboard Construction
Walls and Columns

THICKNESS	WEIGHT LB SQ. FT.	WALL SURFACE	SOUND TRANSMISSION CHARACTERISTICS — INDIVIDUAL FREQUENCIES—CPS 125	250	500	1000	2000	4000	STC 1	9 FREQ. AVG. 2	SPEECH PRIVACY RANGE 3	SOUND TRANS. CHAR. TEST REF.	FIRE RESIST. RATING 4	FIRE RESIST. TEST REF.	MODEL BUILDING CODE APPROVALS 5
PARTITIONS (wood studs 2" x 4"— 16" o.c. Loadbearing except when noted— "N")															
4⅞"	5.2	⅜" Bestwall, both sides	—	—	—	—	—	—	—	—	—	—	25 Min.	EST	A B A
4⅞"	5.9	½" Bestwall, both sides	22	23	28	32	33	41	44	—	46	—	39	—	34	—	BS-234	40 Min.	EST	A B C
4⅞"	6.0	½" Bestwall, both sides with Mineral Wool in stud space	—	—	—	—	—	—	—	—	—	—	—	40	—	—	1 Hr.	BMS-92	A B C
5⅛"	—	⅝" Bestwall Firestop, 2 layers both sides	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	U.L. 5	—
4⅞"	5.2	⅝" Bestwall Firestop, both sides	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30 Min.	85	—
4⅞"	5.9	½" Bestwall Firestop, both sides	—	—	—	—	—	—	—	—	—	—	—	34	—	—	45 Min.	U.L. 1	— B C
4⅞"	6.0	½" Bestwall Firestop, both sides, with Mineral Wool in stud space	—	—	—	—	—	—	—	—	—	—	—	40	—	—	1 Hr	BMS-92	A B C
4⅞"	7.0	⅝" Bestwall Firestop, both sides	22	16	29	31	33	38	41	41.5	36	36.5	45	34	32	38	OR-64-8	1 Hr.	U.L. 5	A B C
4⅞"	7.0	⅝" Bestwall Firestop, tile backer board, both sides	22	16	27	31	33	38	41	41.5	36	36.5	45	34	32	38	OR-64-8	1 Hr.	U.L. 5	A B C
5⅛"	8.2	⅝" Bestwall, 2 layers, 2 layers, both sides	27	24	31	35	40	42	46	—	53	—	48	—	38	—	BS-225	1 Hr.	G.A.	A — —
5⅛"	7.96	½" Bestwall Firestop, one layer over ¼" Gypsum Sounddeadening board, both sides (No adhesive)	19.4	25.6	37.1	37.4	41.2	45.5	46.5	53.8	59.7	58.5	54.5	41	40.8	50.9	BW-13-FT	1 Hr.	EST	—
5⅛"	9.5	⅝" Bestwall Firestop, one layer, other side two layers	23.5	19.5	33	34.5	36	40	43	45	40	40	47	37	35	41	CR-64-11	1½ Hr.	EST	—
5⅛"	6.3	⅝" Bestwall Firestop, 1 layer nailed one side 1 layer on resilient furring other side	29.5	28	33	41	45	48.5	52	52.5	44	41	51	44	41	48	OR-64-7	1 Hr	T-3127	A B C
5⅛"	6.4	⅝" Bestwall Firestop, 1 layer nailed one side 1 layer on resilient furring other side plus fiber glass insulation in stud space	33.5	35	43	50.5	51	54	55	55	54	47.5	53	50	48	53	OR-64-53	1 Hr	T-3127	A B C
5⅛"	9.9	½" Bestwall, 2 layers both sides	—	—	—	—	—	—	—	—	—	—	—	—	39	—	OR-00-00	1½ Hr	G.A.	A —
5⅛"	11.0	½" Bestwall, 2 layers both sides, staggered studs	42	40	39	40	45	42	45	—	41	—	53	—	43	—	OR-00-0	—	—	—
5⅛"	8.5	⅝" Bestwall Firestop, over ½" Bestwall Sound Deadening Board both sides	25	30	38	43	47	52	57	58	55	54	59	46	45	54	OR-64-73	1 Hr	T-3006	A B C
—	13.4	⅝" Bestwall Firestop, 2 layers each side staggered studs	41	41	41	43	46	48	49	—	41	—	54	—	45	—	BS-244	2 Hrs.	EST	—
6"	8.8	⅝" Bestwall Firestop, 2 layers one side, 1 layer on resilient furring other side	32.5	32	38	44.5	49	52.5	55	56.5	49	45	54	48	45	51	OR-64-15	—	EST	—
6⅛"	12.0	⅝" Bestwall Firestop, 2 layers each side	26.5	22	36	37	42	43.5	48	49.5	45	44.5	51	41	39	46	OR-64-12	2 Hrs	T-3134	A B C
FIRE RETARDANT WOOD STUDS (*2" x 4"—24" o.c. †2" x 3"—24" o.c.)															
*4⅛"		⅝" Bestwall Firestop, one layer each side	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	A.W.P.I.	A B —
†3⅛"		⅝" Bestwall Firestop, one layer each side	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	A.W.P.	—
EXTERIOR WALLS Sturn. Wall—S.E. Panel (wood studs 2" x 4"—16" o.c.)															
5"		⅝" Bestwall Firestop, one layer each side, 1½" x 6" Gypsum rib	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	T-3009	—
5"		⅝" Bestwall Firestop, (Interior) one layer ½" Gypsum Shtg., and wood siding or other (Exterior)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	T-99 BMS-92 U.L. 50	—
5⅛"		⅝" Bestwall Firestop, two layers (Interior) ½" Gypsum Shtg., 2' x 8' T&G and 4" Brick wall (Exterior)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	U.L. 3	—

NOTE: This table is a summary only, based on tests at Underwriters' Laboratories, National Bureau of Standards, University of California, Ohio State University, Geiger and Hammon Fairbank Laboratories and/or Ohio Research Corporation sponsored by the Bestwall Gypsum Division, Gypsum Association, or others. The fire rating, weight and sound characteristics are based on the information of specific details as tested and published.

FIRE HAZARD CLASSIFICATION: Official Underwriters' Tests. ½" and ⅝" Bestwall Firestop, 10-15 (Labeled); ⅜", ½", and ⅝" Bestwall, 10-15 (Not Labeled)
More complete listings and details are available.
Inconsistencies in test results are due to tests over a period of many years and variations in laboratory facilities.

1. STC under *sound characteristics* is *Sound Transmission* Class.
2. 9 Frequency Average, the average decibel loss using nine of the eleven frequencies 125 to 4000 CPS range (Minus—1400 and 2800 Frq.)
3. Speech Privacy Range, the average decibel loss using six frequencies—500 to 2800 CPS range.
4. Official Underwriters' Tests have proven joint finishing is not required for the rating in assemblies of Firestop.
5. Under "Model Building Code Approvals" (A) refers to International Conference of Building Officials; (B) refers to Southern Building Code Congress; (C) refers to Building Officials Conference of America. Additional approvals requested.

SGP 0022702

WARRANTY:
The assemblies covered above have been developed with due regard to practical construction methods. However, since the Bestwall Gypsum Division does not have any practical control over the specific Building design and its construction or the methods of application used with their products, no warranty of performance is made. All of the test results have been obtained under laboratory conditions where controlled environment reduces variables to a minimum. In the field, such laboratory conditions are not always met since many other variables are introduced that may exceed results of field tests, but the laboratory tests under controlled conditions are the only logical way to compare the performance of different assemblies. The Bestwall Gypsum Division of Georgia-Pacific Corporation makes no warranty that the performance of assemblies in the field will have a performance equal to or better than that developed in the test.

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G-P/BESTWALL

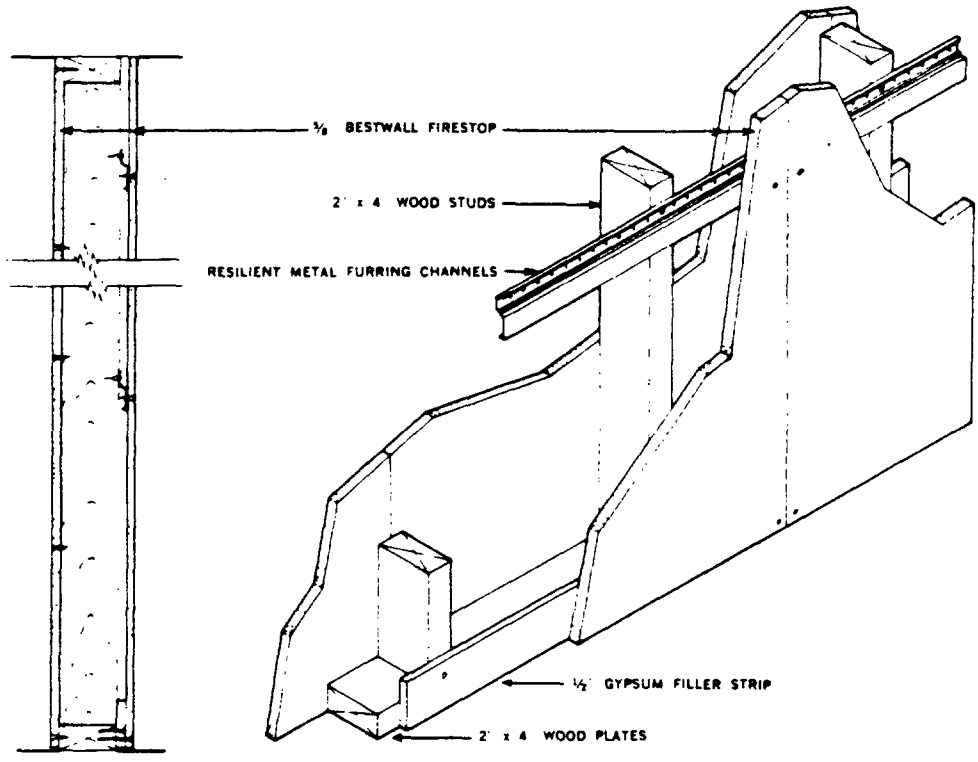
Construction Systems

There are many different kinds of construction systems that are based on the requirements of your particular building installation. Basically the main considerations are: **Fire Resistance, Sound Transmission, Relative Strength of the Installation, Dimensional Restrictions** and **Economy.**

G-P Bestwall has many different materials which can be used individually or collectively. The following pages will give you a brief selection of systems and their advantages.

However, no matter which system is used there are some very basic installations considerations to keep in mind. After the wall and floor and ceiling constructions have been selected, it is important that they be installed properly. The following precautions should be taken during installation to avoid situations or conditions which will detract from the sound control properties of the assembly:

Load Stud Gypsum Wallboard Partition



RESILIENT CHANNEL ON ONE SIDE FOR REDUCED SOUND TRANSMISSION—STC OF 44

Materials: All gypsum wallboards, metal runners and accessories, joint system products used, shall be furnished by the G-P/Bestwall Gypsum Division. Gypsum wallboard ⅜", ½" or ⅝" thick Regular or Firestop, 4' wide x ceiling height for vertical application or up to 16' long for horizontal application, tapered edge.

Framing: Prior to the gypsum board application, all framing members should be true and firmly nailed in a plane surface. Provide double studs at all corners. Both inside and outside intersections are formed by extending one edge of a panel over the other edge in a flush position and covering with tape and joint treatment. In single ply installation, all ends and joints of gypsum wallboard shall occur over framing members, except that this is not required for treated joints at right angles to framing members.

Application: Gypsum wallboard may be applied horizontally or vertically to 2" x 4" wood studs with nails or screws. (Alternate method-stud adhesive may be applied to studs before applying gypsum wallboard.) The gypsum wallboard shall be attached with GWB-54 annular ring nails 1¼" head, .098" Dia. ASTM-C380—1¼"-1⅜" long or with 1¼" long G-P/Bestwall Type "W" drywall screws. 1" long G-P/Bestwall type "S" Drywall screws.

SINGLE PLY GYPSUM WALLBOARD MAXIMUM FRAMING SPACING

Wallboard Thickness	Application
⅜" sidewalls	Horizontal or Vertical 16" o.c.
½" sidewalls	Horizontal or Vertical 24" o.c.
⅝" sidewalls	Horizontal or Vertical 24" o.c.

NAILING OR SCREW SPACING FOR SINGLE-PLY GYPSUM WALLBOARD

(Framing 16" o.c.)

Wallboard Thickness	Single Nailing	Double Nailing
⅜" sidewalls	8" o.c. Max.	12" o.c. Max.
½" sidewalls	8" o.c. Max.	12" o.c. Max.
⅝" sidewalls	8" o.c. Max.	12" o.c. Max.

Wallboard Thickness	Framing 16" o.c. Screw Spacing	Framing 24" o.c. Screw Spacing
⅜" sidewalls	16" o.c. Max.	–
½" sidewalls	16" o.c. Max.	12" o.c. Max.
⅝" sidewalls	16" o.c. Max.	12" o.c. Max.

NOTE: Nails or screws should be driven not less than ⅜" from edges or ends of panels. While fasteners are being driven, the wallboard shall be held in firm contact with the underlying supports. Preferably, application of fasteners should proceed from the central portion of the wallboard to the ends and edge. Dimple nails or screws without breaking the face paper. **Joints:** All joints should be taped and finished with tape and joint compound, nail or screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P/Bestwall Metal Casing Beads and finished with joint compound.

NOTE: This assembly with one layer ⅝" Firestop each side has a 1-hour fire resistive rating and an STC of 34; for additional fire resistive ratings and sound transmission characteristics, see Page F/25.

SGP 0022703

G-P/BESTWALL

1. Caulk between top and bottom member and floor or ceiling line. Leaks allow sound to pass through.

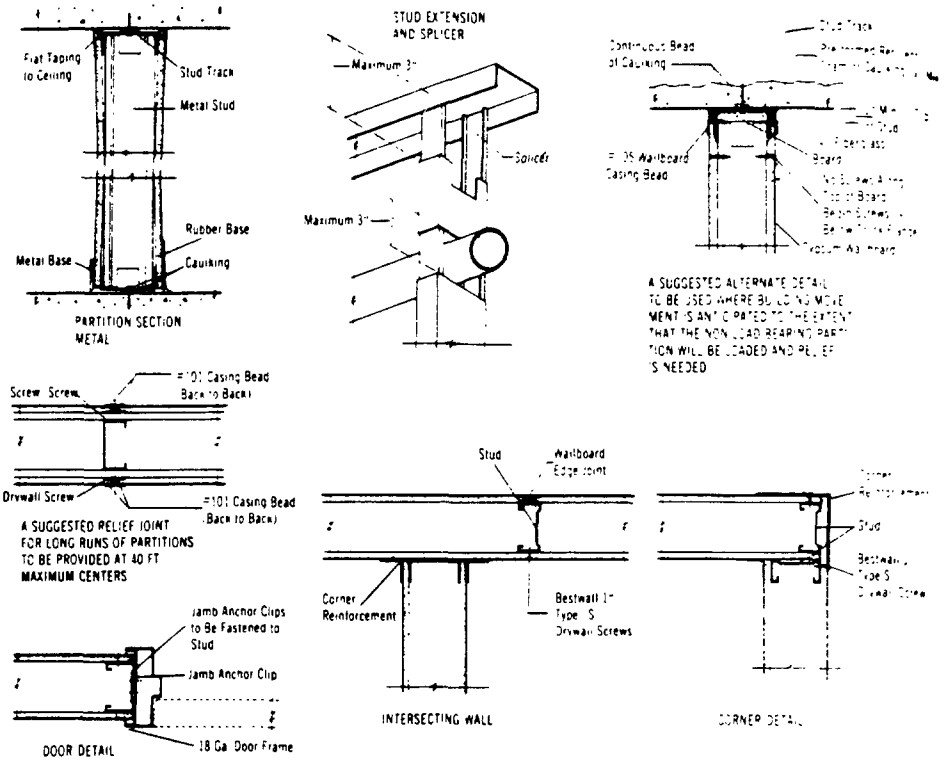
2. Avoid back-to-back electrical outlets, plumbing outlets, etc. Sound can pass directly through the wall at these locations.

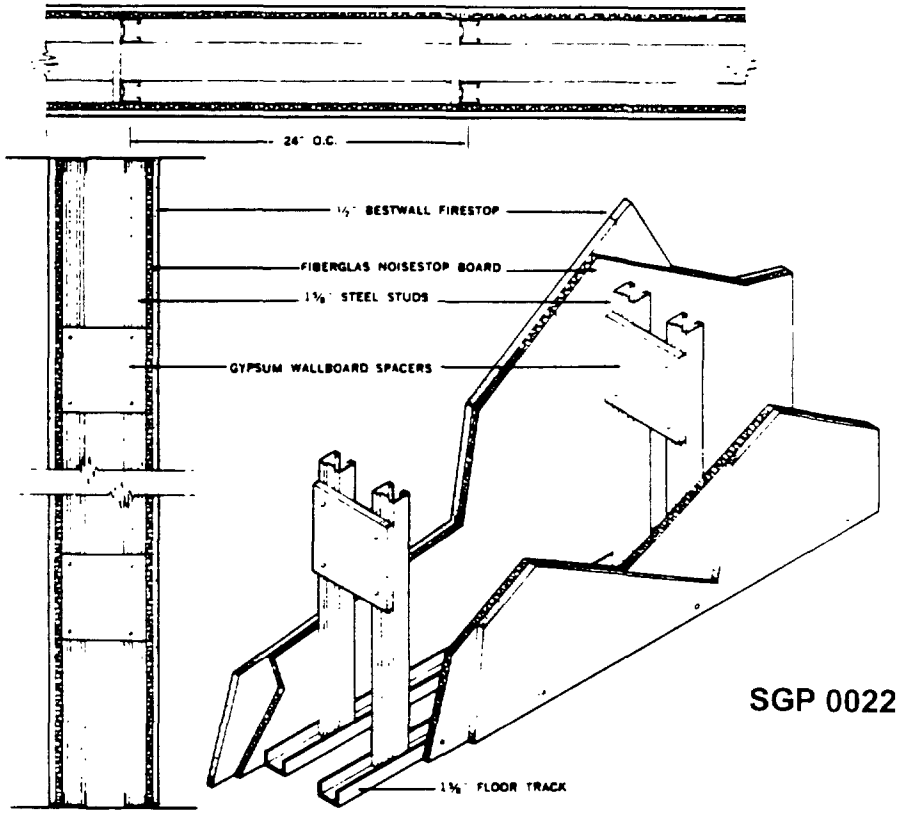
3. Do not use unnecessary fasteners. Fasteners recommended are optimum, and additional fasteners may reduce the separation effect and cause the wall to lose some of its isolation properties.

4. When laminating full size sheets, apply laminating adhesive in narrow bands around the perimeter and down the center of each sheet. Full lamination reduces sound barrier properties.

5. Use gasketing at areas where partitions join windows or other difficult to seal areas. Sound can travel around a partition if given the opportunity to do so.

6. Avoid connecting plenum chambers, ducts, vents, etc. These permit the unrestricted flow of sound. Corrective measures are to make partitions full height, and use ducts lined with absorbent material.





SGP 0022704

 For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling

Materials: All gypsum wallboards, metal studs, runners and accessories and joint system products used shall be furnished by the G-P/Bestwall Gypsum Division, gypsum wallboard shall be ½" Regular or Firestop 4' wide x ceiling height for vertical application or up to 16' long for horizontal application, tapered edge.

Floor and Ceiling Runners and Studs: 1⅝", 2½" or 3⅝" (Other widths available.) Metal studs and runner channels shall be roll formed channels 25 gauge (0.021") electro or hot dipped, galvanized sheet steel with width dimensions suitable for various partition thicknesses.

Fasteners: 1" long G-P/Bestwall Type "S" Drywall screws.

Installation: Ceiling and floor track shall be aligned and anchored securely with a suitable fastener at a maximum of 24" o.c. Steel studs shall be positioned vertically in ceiling and floor tracks spaced not over 24" o.c. All studs located adjacent to window and door frames, partition intersections and corners shall be screwed through the stud and track flanges. Studs shall be installed not over 2" from abutting partitions, partition corners and all door frames. Studs shall be anchored by welding, bolts or screw attachment to jamb and head of door or borrowed light frames. A stud of required length shall be positioned at vertical joints over door headers. Use Extension splicers where required. ½" or ⅝" thick G-P/Bestwall Gypsum Wallboard may be applied vertically or horizontally. The board is screw attached with 1" or suitable length Type "S" G-P/Bestwall drywall screws spaced not over 12" o.c. in field over each stud, and 8" o.c. at top and bottom runners. Screws shall be power driven and seated with screw heads being slightly below surface without breaking surface paper. Screws shall not be closer than ⅜" from edges and end of panel. Vertical joints of face board shall be centered over each stud and joints shall be staggered 24" o.c. from the joints on the opposite side of wall. Boards shall not be screw attached to the ceiling runner when erected under a concrete floor slab. Where walls are erected under a concrete floor slab, a ½" slip joint is recommended between the slab and the top edge of steel stud and top edge of face boards to allow for building movement (see detail).

NOTE: Before attaching metal runners at ceiling, floor and intersection of walls at columns, a bead of caulking shall be applied in back of the metal runners for better resistance to sound transmission.

Joints: All joints should be taped and finished with tape and joint compound. Screw heads should be finished with beading and topping compound. Exterior angles are covered with G-P/Bestwall Metal Corner Bead and finished with Joint Compound. The top edge of wallboard at the ceiling angle adjacent to a concrete floor slab shall be finished with flat tape and joint compound or a G-P/Bestwall Metal Casing Bead over top edge of the face boards (see detail).

NOTE: This assembly with one layer ⅝" Firestop each side has a 1-hour fire resistive rating and an STC of 42; for additional fire resistive ratings and sound transmission characteristics see Page F/22 thru F/24.

Materials: All gypsum wallboards, laminating compound, joint system products, metal runners and metal accessories used, shall be furnished by the G-P/Bestwall Gypsum Division. Gypsum wallboard ½" G-P/Bestwall Firestop 4' wide x ceiling height (tapered edge), gypsum spacers ½" thick, 6" wide x 12' gypsum wallboard. Owens-Corning Fiberglas Noisestop Board, 7/16" thick by 9.25 P.C.F.

Floor and Ceiling Runners and Studs: 1⅝" shall be roll formed 25 gauge (0.021") galvanized sheet steel and spaced to suit partition thickness as detailed and held by 12" gypsum board spacers fastened on quarter points as detailed. **Steel Studs:** ⅜" thick.

Fasteners: 1"-1⅝" G-P/Bestwall Type "S" drywall screws.

Installation: Ceiling and floor track shall be aligned and anchored securely with suitable fasteners at a maximum of 24".

Position: One layer 7/16" Owens-Corning Fiberglas Noisestop Board each side with vertical joint off studs min. 6". Apply one layer of ½" G-P/Bestwall Firestop Gypsum Wallboard each side and fasten with 1⅝" Type "S" drywall screws—⅜" off vertical and end joints and over intermediate stud surface. Screws spaced 12" o.c. in field and at top and bottom 8" o.c. Screws driven slightly below the surface of face without breaking face paper. Vertical joints of face board shall be staggered from the vertical joints on the opposite side of wall. Where walls are erected under concrete floor slabs, a ½" slip joint is recommended between the top edge of the steel studs and top edge of the wallboards (see detail).

NOTE: Before attaching metal runners at ceiling, floor and intersection of walls at columns, a bead of caulking should be applied in back of the metal runners for better resistance to sound transmission.

Joints: All joints should be taped and finished with G-P/Bestwall Bedding and Topping Compound. Screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P/Bestwall Metal Corner Bead and finished with joint compound. The top edge of wallboard at the ceiling angle adjacent to a concrete floor slab shall be finished with flat tape and joint compound or a G-P/Bestwall Metal Casing Bead over top edge of the face boards.

NOTE: This assembly with one layer ½" Firestop each side of partition assembly has a 1-hour estimated fire resistive rating and an STC of 49; for additional fire resistive ratings and sound transmission characteristics see Page F/23.

SGP 0022705

G-P/BESTWALL

Solid

Another system of drywall construction consists of the absence of wood or metal studs, either of which has its particular fire resistance deficiency value. In the following four systems (partially explained below) the common factor in each is that they are all constructed (except for floor/ceiling runners) entirely of some form of gypsum incombustible material.

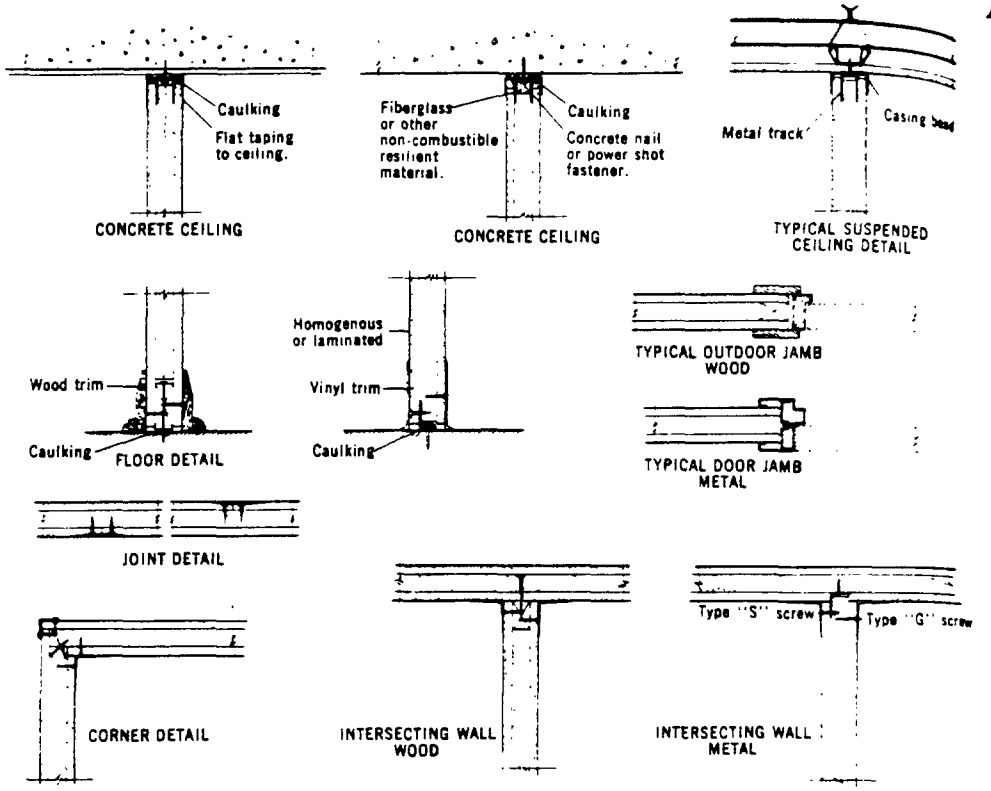
2" Solid Laminated – (Non-Load Bearing) – A 1" gypsum core board with a ½" gypsum laminated to each side; no air space at all, a 2" solid wall. Has a 2 hour fire rating, economical to buy and construct, a 35 decibel STC, creates smooth monolithic walls and creates extra usable floor space.

2¼" Semi-Solid Laminated – (Non-Load Bearing) – A center verticle rib (or stud) composed of 2 layers of gypsum laminated, (1" x 6" rib, 24 o.c.) is the base upon which ⅝" gypsum wallboards are laminated to each side. This leaves intermittent 1" dead spaces for wiring. Has a 1 hour fire rating, simplicity of installation saves money, a 30 decibel STC, creates smooth walls and provides extra floor space.

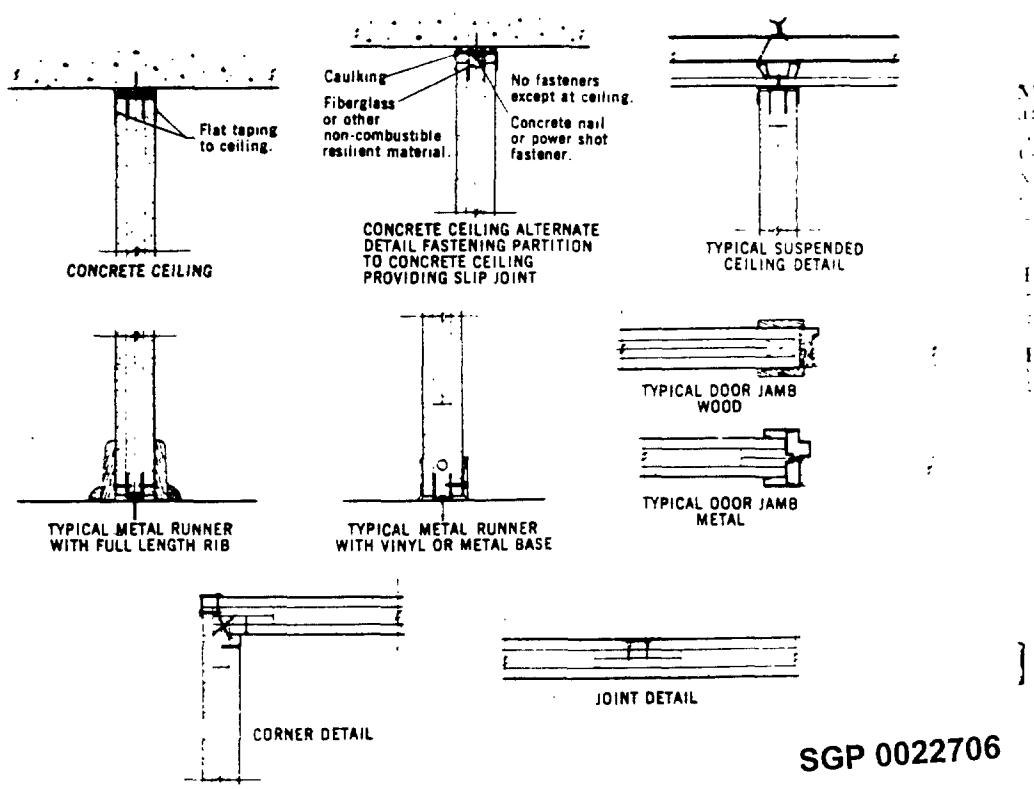
Double Solid Laminated – (Non-Load Bearing) – Consists of laminating ½" gypsum wallboa.d to a 1" tongue and groove coreboard homogenous or laminated on each side of a 3" air space. There is absolutely no connection over the air space except at the jambs. Has a 2 hour fire rating, greater strength than standard frame or thin solid wall, a 47 decibel STC and smooth wall surface.

Triple Solid Laminated – (Non-Load Bearing) – The center piece is a 1" gypsum core panel running the height and length of wall, on one side of which is dead space the other side is filled with fiberglass insulation. Outer section of wall (on both sides) is a ½" wallboard laminated to 1" coreboard (this gives a 1½" wall on both sides of center section). Three hour fire rating, a 57 decibel STC and smooth monolithic walls.

2" Solid Laminated Gypsum Wallboard



2¼" Semi-Solid Laminated Gypsum Wallboard



SGP 0022706

For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling

Materials: All gypsum wallboards, metal runners and accessories, laminating compound and joint system products used shall be furnished by the G-P/Bestwall Gypsum Division. Gypsum wallboard ½" thick Regular or Firestop, 4' wide x ceiling height, tapered edge, 1" coreboard 2' wide x ceiling height (homogenous or laminated) T&G edge.

Floor and Ceiling Runners: 1" x 1⅝" wood runner or 1" x 1½" roll formed 24 gauge galvanized sheet steel "L" or "U" shaped runner.

Fasteners: Nails 1½" long finishing nails. Screws 1" or 1¼" long G-P/Bestwall Type "S" drywall screws, 1¼" or 1¾" Type "G" drywall screws.

Application: Ceiling and floor track shall be aligned and anchored securely with suitable fasteners at a maximum of 24" o.c. Position 1" G-P/Bestwall coreboard (vertically) into ceiling and floor track fasten 24" o.c. and fasten with 1¼" long Type "S" Drywall screw. Apply G-P/Bestwall Laminating Compound to both sides of the 1" coreboard or the backs of the face wallboards. Use either a comb type spreader, a mechanical tool designed for applying laminating compound. Notches should be 3/16" deep x 3/16" wide and spaced ¾" o.c. Position the face layers of wallboard and fasten along vertical edges and down middle of 4' wide board. Fasten with 1¾" Type "G" Drywall screws spaced at not over 24" o.c. in field—8" o.c. at top and bottom runner, maintain ⅜" space from edges and end of panel. Drive screws slightly below the face without breaking face paper. Vertical joints of face boards shall be staggered a minimum of 6" from the vertical joints of coreboard. Vertical joints of the face boards shall be staggered from the vertical joints on the opposite side of the wall. Where walls are erected under a concrete floor slab, a ½" slip joint is recommended between the slab and the top edge of the 1" coreboard and the top edge of the face boards to allow for building movements (see detail).

NOTE: Before attaching metal runners at ceiling, floor and intersection of walls at columns, a bead of caulking should be applied in back of the metal runners for better resistance to sound transmission.

Joints: All joints should be taped and finished with G-P/Bestwall Bedding and Topping Compound. Nail or screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P/Bestwall Metal Corner Bead and finished with joint compound. The top edge of Wallboard at the ceiling angle adjacent to a concrete floor slab shall be finished with flat tape and joint compound or a G-P Bestwall Metal Casing Bead over top edge of the face boards (see detail).

NOTE: This assembly with one layer ½" G-P/Bestwall Regular Gypsum Wallboard each side has a 2-hour fire resistive rating and a 9 FRO Av. of 37 db for additional fire resistive ratings and sound transmission characteristics see Page F, 24

Materials: All gypsum wallboards, gypsum ribs, metal runners and accessories, laminating compound, joint system products used shall be furnished by the G-P/Bestwall Gypsum Division. Gypsum wallboard ½" or ⅝" thick Regular or Firestop 4' wide x ceiling height tapered edge-gypsum ribs consist of two layers of ½ gypsum wallboard, factory laminated 1" thick x 6" wide -other rib thicknesses available as detailed by partition thickness. Gypsum ribs may be cut ½" or 5" short of ceiling height.

Floor and Ceiling Runners: 1" x ⅝" wood runner or 1" x 1½" roll formed 24 gauge galvanized sheet steel "L" and "U" shaped runners.

Fasteners: Nails—1½" long finishing nails. Screws—1" or 1¼" long Type "S" Drywall screws—1½" or 1⅝" long Type "G" Drywall Screws.

Installation: Ceiling and floor runners shall be aligned and anchored securely with suitable fasteners at a maximum of 24" o.c. Position gypsum ribs into the ceiling and floor runners and laminate one layer of ⅝" G-P/Bestwall Firestop both sides of the assembly and fasten. Fasten with 1⅝" Type "G" Drywall screws spaced 12" o.c. in field and 8" o.c. at top and bottom runner. Drive screws slightly below the surface without breaking the face paper and maintain ⅜" space from vertical edges and ends of panel. Vertical joints of the face boards are centered over the gypsum ribs, stagger the vertical joints from vertical joints of the opposite of the wall 24" o.c. Where walls are erected under a concrete floor slab, a ½" slip joint is recommended between the slab and the top edge of the gypsum rib and face boards to allow for building movement (see detail).

NOTE: Before attaching metal runners at ceiling, floor and intersection of walls at columns, a bead of caulking should be applied in back of the metal runners for better resistance to sound transmission.

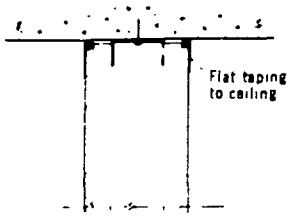
Joints: All joints should be taped and finished with G-P Bestwall Bedding and Topping Compound. Screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P/Bestwall Metal Corner Bead and finished with joint compound. The top edge of wallboard at the ceiling angle adjacent to a concrete floor slab shall be finished with flat tape and joint compound or a G-P Bestwall Metal Casing Bead over top edge of the face boards (see detail).

NOTE: ½" thick face board may be used for a 2" thick partition. Other depth ribs may be used for thicker partitions.

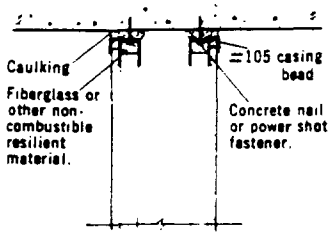
NOTE: When gypsum ribs cut 5" short of ceiling height are used, position and fasten one face layer gypsum wallboard, position 1" x 6" wide gypsum rib, and apply laminating compound and fasten with 1½" long G-P/Bestwall Type "G" Drywall Screws.

NOTE: This assembly with one layer ⅝" G-P Bestwall Firestop Gypsum Wallboard each side has a 1 hour fire resistive rating and an STC of 35. For additional fire resistive ratings and sound transmission characteristics see Page F, 24

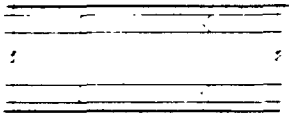
SGP 0022707



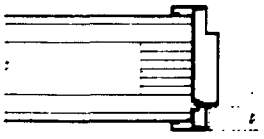
CONCRETE CEILING WITH TAPE AND CEMENT



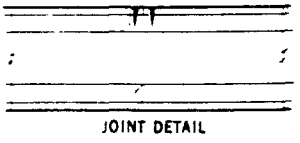
CONCRETE CEILING ALTERNATE DETAIL, FASTENING PARTITION TO CONCRETE CEILING, PROVIDING A SLIP JOINT.



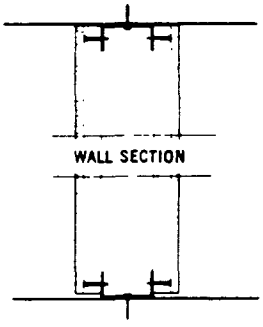
HORIZONTAL SECTION OF WALL



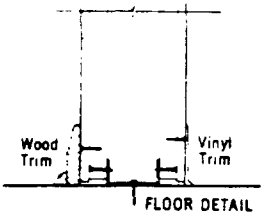
TYPICAL METAL DOOR JAMB



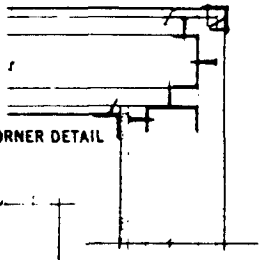
JOINT DETAIL



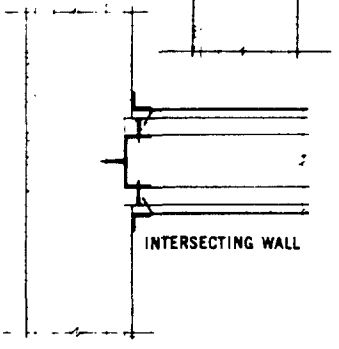
WALL SECTION



FLOOR DETAIL



CORNER DETAIL



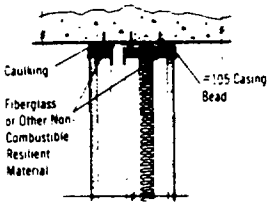
INTERSECTING WALL

Materials: All gypsum wallboards, laminating compound, joint system products, metal runners and accessories used shall be furnished by G-P Bestwall Gypsum Division. Gypsum wallboard ½" or ⅝" Regular or Firestop–Tapered Edge 4' wide x ceiling height and 1" coreboard, 2' wide x ceiling height (Homogenous T&G edge.

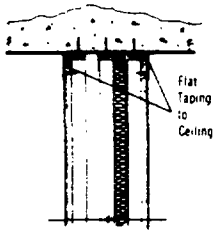
Floor and Ceiling Runners: 1⅝" x 3" wood or 1" x 3" thick roll formed 24 gauge galvanized sheet steel L or 1½" x 3" "U" shaped runners.

Fasteners: Nails – 1½" long finishing nails–screws 1⅝" 2¼" long Type "S", 1⅝" Type "G" drywall screws.

Installation: Ceiling and floor track shall be aligned and anchored securely with suitable fasteners at a maximum of 24" o.c. Position 1" G-P Bestwall Gypsum Division coreboards, vertically with staggered joints and fasten ceiling and floor with 1⅝" Type "S" drywall screws spaced 24" o.c. Apply G-P Bestwall Laminating Compound to the coreboards or to the backs.



CONCRETE CEILING



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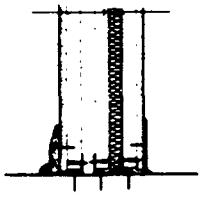
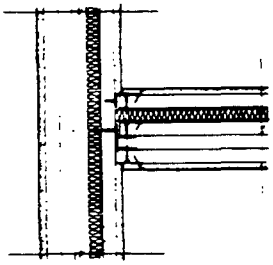


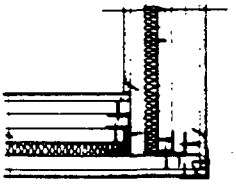
FLOOR DETAIL



HORIZONTAL SECTION OF WALL



INTERSECTING WALL



CORNER DETAIL

Materials: All gypsum wallboards, laminating compound, joint system products, metal runners and metal accessories used shall be furnished by G-P/Bestwall Gypsum Division. Gypsum wallboard ½" regular 4' wide x ceiling height, tapered edge, 1" coreboard 2' wide x ceiling height, T&G edge (homogenous or laminated).

Floor and Ceiling Runners: 1" x 1⅝" wood or 1" x 1½" thick roll formed 24 gauge galvanized sheet steel "L" or "U" shaped runners.

Sound Insulation: 1½" fiberglass.

Fasteners: Nails, 1½" long 5d and 8d coated nails. Screws, 1⅝", 1⅞" Type "S" G-P/Bestwall Drywall. Screws, 1½", 1⅝" Type "G" G-P/Bestwall Drywall screws.

Installation: Ceiling and floor track shall be aligned and anchored securely with suitable fastener at a maximum of 24" o.c. Provide for two air space cavities. Position: Center G-P/Bestwall 1" Coreboard and fasten at ceiling and floor line, wood runner 5d

SGP 0022708

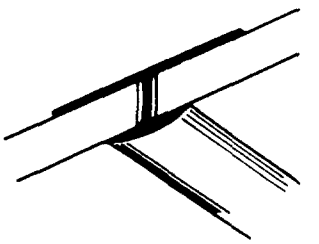
 For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Guide to Products for Interior Paneling"

G-P/BESTWALL

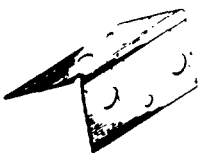
of the face boards and fasten one layer ½" G-P/Best- wall Gypsum Wallboard on each side of partition with 1⅝" G-P/Bestwall Type "G" drywall screws, spaced 24" o.c. in field and at top and bottom 8" o.c. Vertical joints of the face boards are staggered 6" from vertical joints of the core board. Maintain a ⅜" space from vertical and end joints. Screws should be driven slightly below face without breaking face paper. Where walls are erected under a concrete floor slab, a ½" slip joint is recommended between the slab and the top edges of the coreboard and face boards to allow for building movement (see detail). **NOTE:** Before attaching metal runners at ceiling, floor and intersection of walls at columns, a bead of caulking should be applied in back of the metal runners for better resistance to sound transmission.

Joints: All joints should be taped and finished with G-P/Bestwall Bedding and Topping Compound. Screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P/Bestwall Metal Corner Bead and finished with joint compound. The top edge of wallboard at the ceiling angle adjacent to a concrete floor slab shall be finished with flat tape and joint compound or a GP/Bestwall Metal Casing Bead over top edge of the face boards. (see detail).

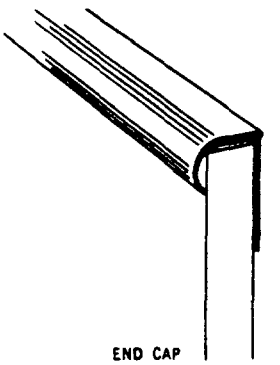
NOTE: This assembly with one layer ½" Gypsum Wallboard applied to each side of two 1" Gypsum Coreboards separated with a 3" air space, has a 2-hour fire resistive rating and a STC-47; for additional fire resistive characteristics see Page F/24.



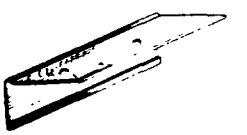
DIVIDER



METAL CORNER

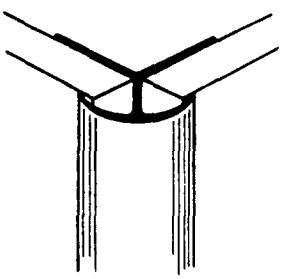


END CAP

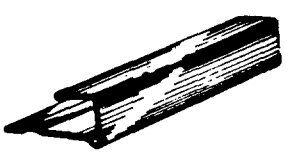


METAL CASING

OUTSIDE CORNER



INSIDE CORNER



SQUARE NOSE

coated nail 12" o.c. metal runner 1⅝" Type "S" drywall screw 24" o.c. Staple 1½" fiberglass insulation to one side of the center 1" Coreboard. Position the outer two 1" Coreboards. Stagger vertical joints and fasten. Apply G-P Bestwall laminating compound to the coreboards or back of face boards, apply one layer of ½" G-P Bestwall gypsum wall board each side of wall and fasten with G-P Bestwall 1⅝" Type "G" drywall screws along edges and down the middle of 4' wide board, maintain ⅜" space from edges and ends of board. Vertical joints of the face board shall be staggered from the joints in the coreboard. Screws spaced 12" o.c. in field and at top and bottom 8" o.c. Screws driven slightly below the surface of face without breaking face paper. Where walls are erected under a concrete floor slab, a ½" slip joint is recommended between the slab and the top edges of coreboards and top edge of face boards to allow for building movement (see detail). **NOTE:** Before attaching metal runners at ceiling, floor and intersection of walls at columns, a bead of caulking should be applied in back of metal runners for better resistance to sound transmission.

Joints: All joints should be taped and finished with G-P/Bestwall Bedding and Topping Compound. Nails or screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P Bestwall Metal Corner Bead and finished with joint compound. The top edge of wallboard at the ceiling angle adjacent to a concrete floor slab shall be finished with flat tape and joint compound or a G-P/Bestwall Metal Casing Bead over top edge. (See detail.)

Note: This assembly with one layer ½" G-P/Bestwall Gypsum Wallboard over 1" coreboard both sides has an estimated 3-hour rating and an STC of 57. For additional fire resistive ratings and sound transmission characteristics see Page F/24.

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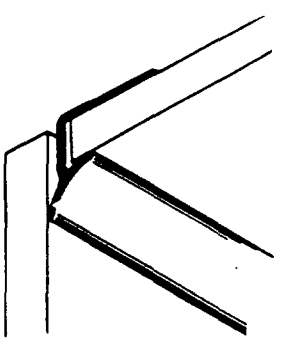
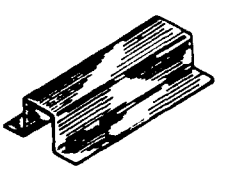


ANGLE EDGE



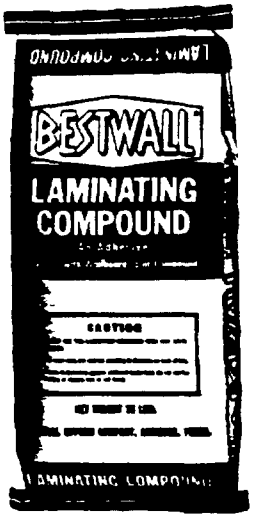
HAT SECTION

G-P/BESTWALL

Accessory products

Laminating Compound–G-P/Bestwall Laminating Compound is a casein base dry powder product requiring addition of water only. Add 25 lbs. of Laminating Compound to 4½ to 5 gal. of water. Consistency of the mixed materials should be such that when spread over gypsum board with a 12" serrated sheet metal blade having notches $^{3}/_{16}$" wide, $^{3}/_{16}$" high, $^{3}/_{4}$" o.c., it will not self-level.

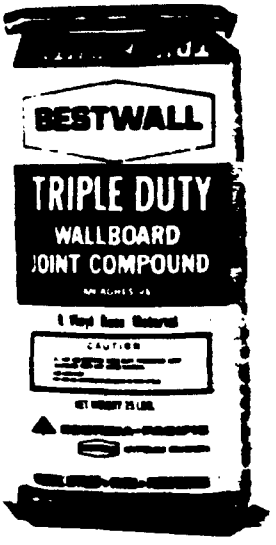
Ribbons of glue may be applied with serrated knife or mechanical glue spreader. Coverage is approximately 30 lbs. per thousand square feet glue line. (See Laminating Compound Product Sheet BW-62675R.)



G-P/Bestwall Ready-Mix Joint Compound–A prepared wet mix product which is used for taping and finishing joints, corner bead, and nail heads. It is available for hand application and for machine application. (See Ready Mix Joint Compound Product Sheet GP 65235.)



G-P/Bestwall Triple-Duty Joint Compound–A vinyl base multi-purpose joint system product used for all coats in the reinforcing of joints, spotting of nail heads, filling cornerbead and texturing. (See Triple Duty Wallboard Joint Compound Product Sheet GP 65240)



G-P/Bestwall One-Day Wallboard Joint Compound is a setting type material as opposed to all other joint products which are of the drying type. It is used for bedding tape, especially with wide joints, and all coats preceding the final coat on joints, cornerbead and nailheads. This product does not shrink. A primer must be used over One Day application prior to texturing. (See 1-Day Wallboard Joint Compound Product Sheet G-P 65265.)



G-P/Bestwall Joint System Products are designed to conceal joints and nailheads. All have easy working characteristics and very low shrinkage. Used in recommended joint treatments, they literally surface weld G-P/Bestwall Gypsum Wallboard Panels together, providing smooth, uninterrupted walls with joints as strong as wallboard itself. Instructions are included on each container.



G-P/Bestwall Wallboard Joint System Compound–A compound used for both bedding and topping G-P/Bestwall Tape and for spotting nail heads. Sanding may be eliminated by careful application. (See Joint System Product Sheet No. GP 65285)

G-P/Bestwall Bedding Compound–Designed to provide maximum adhesion of tape to the joints. It spreads smoothly. This product is off white in color. Hand or machine application.

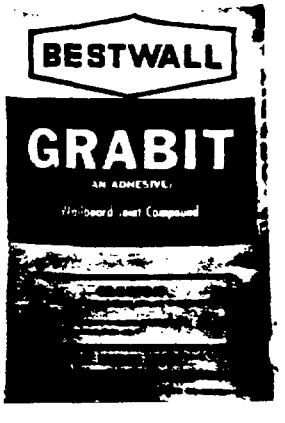
G-P/Bestwall Grabit–Grabit is an adhesive developed by G-P/Bestwall, which permits direct attachment of Gypsum Wallboard to interior masonry walls. It may be used on poured concrete, or block walls which are reasonably straight and true and are free from surface decoration or protrusions.

The adhesive fills in all normal irregularities in the masonry. In 3 to 4 hours Grabit sets hard, and joint taping and finish operations may then be started. (See Grabit Product Sheet GP-65305.)

G-P/Bestwall All-Purpose Compound is used for bedding tape, topping, corner bead, nail spotting and texturing.

G-P/Bestwall Topping Compound–Used for finishing taped joints and spotting nail heads. Sanding is unnecessary. Long working and shrinkage. (See Product Sheet GP 65285)

G-P/Bestwall Tape–Inclu- skived edges and center crease, this tape is roughened for excellent bonding qualities. It has good porosity and allows rapid drying of joint adhesive. Stabilized against varying humidity conditions it reduces uneven expansion and edge wrinkling.



SGP 0022710

G-P/BESTWALL

Specifications for joint treatment of systems partition

Texturing Materials

BESTEX A, B, C

Bestex A, B and C are texture materials designed to produce various texture finishes over drywall construction. Bestex A contains no aggregate and can be used for both hand and spray application to produce textures such as stipple, swirl, spatter and orange peel finishes. Bestex B contains a small amount of aggregate and produces medium coarse textures such as sand finishes. Bestex C contains a large amount of aggregate and produces a simulated acoustical texture finish. Both B and C textures are for spray application only. All three textures produce hard surfaced, white, decorative finishes that have excellent light reflective qualities and hiding power. If desired, Bestex A, B, and C may be textured or can be painted with latex or vinyl paint.

Advantages—Bestex A, B and C.

• High-pigment content gives excellent hiding power • Superior hardness and whiteness • Economical—excellent coverage • Good water resistance • Excellent light reflective qualities • Can be painted with latex or vinyl paints.

Product Uses*—Bestex A: For hand and spray application over ceilings and walls constructed with gypsum wallboard. Produces fine texture finishes. Aggregate may be added for heavier textures if desired.

Bestex B: For spray application over ceilings and walls constructed with gypsum wallboard. Produces medium coarse texture finishes.

Bestex C: For spray application over ceilings constructed with gypsum wallboard. Produces coarse texture finishes.

*Bestex A, B, and C can be used over interior concrete surfaces if bare metal is primed with a rust inhibitor (See Bestex A, B, and C Product Sheet—GP 65225)

Scope—All walls and ceiling surfaces are included. Furnish all labor and material necessary to reinforce and conceal joints between gypsum wallboards and cover nailheads in a first-class workmanship manner.

Materials – 1. One-Material Treatment – G-P/Bestwall Joint System Compound, Triple Duty Joint Compound, or G-P/Bestwall Ready Mix Joint Compound. Used for bedding and for spotting nailheads.

2. Two-Material Treatment—G-P/Bestwall Bedding Compound or G-P/Bestwall One Day Wallboard Joint Compound and G-P/Bestwall Topping Compound.

Reinforcing Tape—G-P/Bestwall Tape.

Apply G-P/Bestwall Wallboard Joint Compound, Triple Duty, Joint Compound, Ready Mix Joint Compound, One Day Wallboard Joint Compound or Bedding Compound, and embed tape leaving uniform thickness of material under tape. Cover nail or screw heads in field of board at each application of material in joints.

(If joints are irregular or have wide cracks in some places and boards are not in same plane apply G-P/Bestwall Wallboard Joint Compound, Triple Duty Joint Compound, Ready Mix Compound, One-Day Wallboard Joint Compound or G-P/Bestwall Bedding Compound to taper edge joints, end joints and nail heads. Shear off surplus leaving no material on high edges. Allow 12 hours drying before taping, leaving uniform depth of taper for uniform shrinkage of joint finishes over and under tapes.)

Joint Work—When Wallboard Joint compound, Triple Duty Joint Compound, Bedding Compound or Ready Mix Joint Compound has dried completely, cover taped joints with Wallboard Joint Compound, Triple Duty Joint Compound, Ready Mix or Topping Compound. (When 1-Day Wallboard Joint Compound is used, the taped joint can be covered as soon as initial coat is set and before it is dry.) Shear off surplus leaving uniform coverage over take with edges well feathered.

When preceding coats are completely dry (where 1-Day is used it is only necessary for it to be hardened, not completely dry) cover joints second time with Wallboard Joint Compound, Triple Duty Compound, Ready Mix Joint Compound, or Topping Compound. Shear off surplus leaving smooth, well feathered joint.

For best results and more uniform suction for decoration, apply skim coat of Wallboard Joint Compound, Triple Duty Joint Compound, Ready Mix Joint Compound or Topping Compound over entire surface shearing off excess material tightly. (See Joint Treatment Product Sheet GP-65285)

Texturing – G-P/Bestwall Bestex A, B, and C can be used to produce various texture finishes over drywall construction. Bestex A produces fine texture finishes, B produces medium sand texture finishes and Bestex C produces coarse simulated acoustical texture finishes. Bestex A can be applied by hand or spray while B and C spray application only. All provide excellent hiding power, superior hardness and whiteness. (See Bestex A, B, and C Product Sheet GP-65225).

Decorating – Gypsum Wallboard properly prepared can be decorated with any treatment ordinarily used for walls or ceilings. Surface shall be sealed with vinyl or pigmented varnish primer *before any* decoration, *including* texture.

G-P/BESTWALL GYPSUM CATALOGS

See "Georgia-Pacific/Bestwall Guide to Products for Gypsum Ceiling Systems" for complete information on gypsum lath and plaster and gypsum wallboard ceiling systems installation data and recommendations.

See "Georgia-Pacific/Bestwall Guide to Firestopper Poured-in-Place Roof Decks." See "Georgia-Pacific Guide to Products for Structural Sheathing, Subflooring and Decking."

See "Georgia-Pacific Guide to Products for Concrete Forms."

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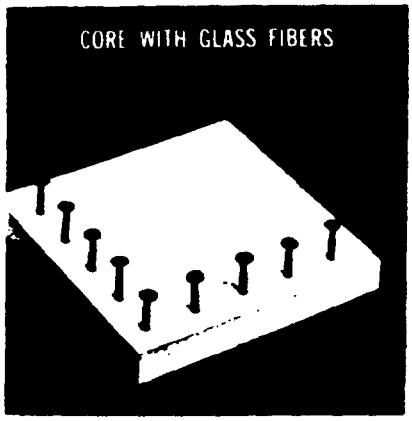

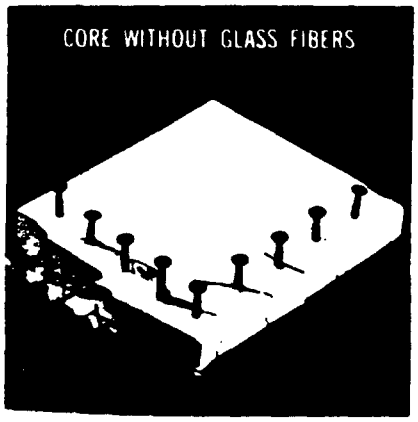

GLASS FIBERS PROVIDE STRONGER CORES





GLASS FIBERS PROVIDE GREATER RESISTANCE TO SHOCK





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BESTWALL GYPSUM WALLBOARD

THE ORIGINAL WALLBOARD WITH GLASS FIBER REINFORCEMENT

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GP

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