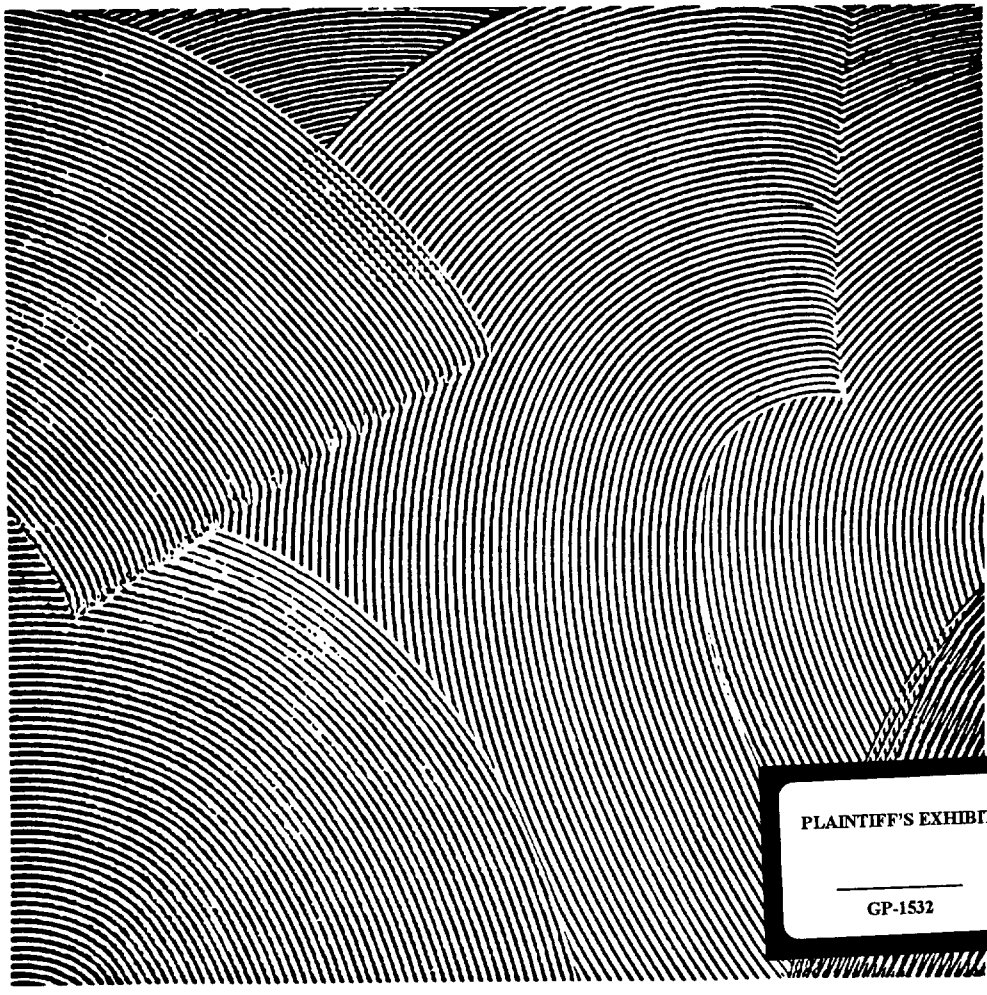
Georgia-Pacific

plaster products

Dens-Cote® veneer/lath and plaster



PLAINTIFF'S EXHIBIT

GP-1532

plaster products

Dens-Cote® veneer/lath and plaster

This brochure presents Georgia-Pacific's plaster and veneer plaster systems. The products and the systems included in the following pages are designed to offer our customers the best methods available and to save time and money. Georgia-Pacific continues to work for you to meet your plaster requirements.



SGP 0023127

Dens-Cote® systems
technical data

	partition system	wall surface	fire rating	test reference	STC rating	test reference
1.	2x4 wood studs 16" o.c.	½" Firestop Base 3/32" Dens-Cote	1 Hour	U. of Calif.	35*	Geiger & Hamme**
2.	2x4 wood studs 16" o.c.	⅝" Firestop Base 3/32" Dens-Cote	1 Hour	UL U305**	37	Est.
3.	2x4 wood studs 16" o.c.	½" Firestop Base, strip laminated over ¼" Gypsum Sound Deadening Board 3/32" Dens-Cote	1 Hour	UL U312**	45	Geiger & Hamme**
4.	2x4 wood studs 16" o.c.	Same as #3 with 1½" insulation	1 Hour	See UL U312**	49	Est.
5.	2x4 wood studs on 2x6 plate	Same as #4, using staggered studs (no insulation)	1 Hour	See UL U312**	47	Geiger & Hamme**
6.	2x4 wood studs on 2x6 plate	Same as #5 with 1½" insulation	1 Hour	UL**	52	Geiger & Hamme**
7.	2x4 wood double studs 16" o.c.	Same as #3, using double studs	1 Hour	Est.	50	Geiger & Hamme**
8.	2x4 wood double studs 16" o.c.	Same as #7, with 1½" insulation	1 Hour	Est.	55	Geiger & Hamme**
9.	2x4 wood studs 16" o.c.	⅝" Firestop Base, strip laminated to ¼" Gypsum Sound Deadening Board 3/32" Dens-Cote	1 Hour	Based on U312	47	Geiger & Hamme**
10.	2x4 wood studs 16" o.c.	Same as #9, with 1½" insulation	1 Hour	Based on U312	50	Geiger & Hamme
11.	2x4 wood studs 16" o.c.	⅝" Firestop Base one side, resilient channel and ⅝" Firestop Base other side, 3/32" Dens-Cote	1 Hour	Ohio State Univ.** T3127	44	Ohio Research**
12.	2x4 wood studs 16" o.c.	Same as #11, with 1½" insulation	1 Hour	Ohio State Univ.**	50	Ohio Research**
13.	2½" steel studs 24" o.c.	½" Firestop Dens-Cote Base 3/32" Dens-Cote	1 Hour	Ohio State U. T4545	35	Geiger & Hamme**
14.	2½" steel studs 24" o.c.	⅝" Firestop Dens-Cote Base 3/32" Dens-Cote	1 Hour	Ohio State U. T2069**	40	Est.
15.	3⅝" steel studs 24" o.c.	2 layers, ½" Firestop Dens-Cote Base each side, 3/32" Dens-Cote	2 Hours	Based on OSU T3127	47	Est.
16.	2½" steel studs 24" o.c.	½" Firestop Dens-Cote, 2" insulation, 3/32" Dens-Cote	1 Hour	Ohio State U. T4545	41	Ohio Research**
17.	2½" steel studs 24" o.c.	½" Firestop Dens-Cote Base strip laminated over ¼" Gypsum Sound Deadening Board, 3/32" Dens-Cote	1 Hour	UL U410**	45	Geiger & Hamme**
18.	2½" steel studs 24" o.c.	Same as #17 with 2" insulation added	1 Hour	UL U410**	50	Geiger & Hamme**
19.	2½" steel studs 24" o.c.	⅝" Firestop Dens-Cote Base strip laminated over ¼" Gypsum Sound Deadening Board, 3/32" Dens-Cote, 2" insulation	1 Hour	Based on UL U410**	54	Geiger & Hamme**
20.	solid gypsum partition	½" Firestop-Dens-Cote Base each side of 1" coreboard 3/32" Dens-Cote	2 Hours	Gypsum Association**	39	Est.

ceiling system	ceiling surface	fire rating	fire test reference	STC rating	STC test reference
1. 2x10 wood joists 16" o.c., wood floor	⅝" Firestop Base 3/32" Dens-Cote	1 Hour	UL L501**		
2. 2x10 wood joists 16" o.c., wood floor	½" Firestop Base, resilient channel 3/32" Dens-Cote	1 Hour	UL L502**	58 (using Dens-Rock floor, & insulation between joists	Geiger & Hamme
3. 2x10 wood joists 16" o.c., wood floor	½" Firestop Base 3/32" Dens-Cote	1 Hour	UL L503**		
4. 2x10 wood joists 16" o.c., wood floor	⅝" Firestop Base, 2 layers, with resilient channel between layers 3/32" Dens-Cote	2 Hours	UL L505**		
5. 2" concrete deck, ⅜" rib metal lath, steel joists, furring channels	⅝" Firestop Base 3/32" Dens-Cote	1 Hour	UL G501**	47	Estimated based on other tests
6. 2½" concrete deck, ⅜" rib metal lath, steel joists, furring channels	½" Firestop Base 3/32" Dens-Cote	2 Hours	UL G504**		
7. 2" concrete deck, ⅜" rib metal lath, steel joists, furring channels	⅝" Firestop Type XXX Base 3/32" Dens-Cote	2 Hours	UL G505**	47	Estimated based on other tests

3/

*Insulation in cavity would make STC 40 (Est.)

**Figures based on actual tests using G-P Gypsum Wallboard.
Applying Dens-Cote Plaster should equal or better these ratings.

NOTE:
Sound Transmission Class (STC) ratings are based on test results or estimated ratings made under laboratory-type conditions. Actual job conditions will vary and every care should be taken to minimize sound leaks over and under partitions or through openings. A recognized sealant such as Tremco Acoustical Sealant should be applied over and under tracks or plates.

Dens-Cote® plaster veneer systems

4/ Dens-Cote Veneer System is a specially designated and formulated gypsum base and plaster combination for use as surfacing for interior walls and ceilings. Dens-Cote Plaster is applied a minimum of 3/32" thick over the Dens-Cote Base. The base is manufactured in a 4 foot width and in lengths from 6 to 16 feet. Whether using the One-Coat or Two-Coat system, all plaster can be applied in one day. Decorating can usually be done the following day. This means a faster, more economical installation that will save days over other wall and ceiling finishes. Dens-Cote is a high strength product with excellent resistance to abrasion or damage. The system is designed for use in residential and commercial constructions.



Dens-Cote® Base

Base can be applied over wood or steel framing, either horizontally or vertically on walls. On ceilings, apply base only across framing. Stagger end joints on horizontal application and on ceilings. Stagger all joints on opposite sides of partition. End joints are to fall on framing members.

nails

½"	1¼" GWB-54 or 1⅝", 5d. cement coated
⅝"	1⅜" GWB-54 or 1⅞", 6d. cement coated

screws

½"	1¼" Type W for wood 1" Type S for steel
⅝"	1¼" Type W for wood 1" Type S for steel

Nails should be 7" o.c. Screws over metal framing (studs or resilient channels), 12" o.c.

Dens-Cote Base may also be adhesively applied to wood or metal framing members. Use nails or screws around perimeter of panels and on ceilings. Use at least one fastener for each framing member in field. Perimeter fasteners will be covered by tape.

wood & steel framing spacing *

base thickness	walls	ceiling
½"	16" & 24" o.c.	16" o.c.
⅝"	16" & 24" o.c.	16" & 24" o.c.
⅜"	16"	do not use

*For Radiant Heat Plaster, see page 7.

Use veneer plaster corner beads on outside corners and veneer plaster trim around window and door openings as needed.

Dens-Cote® over monolithic concrete

To insure an adequate bond, a bonding agent conforming to ASTM C-631 should be applied in accordance with manufacturers' specifications, prior to the application of Dens-Cote plaster.

Dens-Cote® over masonry block

Apply in two coats. Trowel first coat on sufficiently to straighten wall, but do not trowel smooth. After first coat sets, trowel on second coat.

Dens-Cote® specifications

Coverage: 14-16 sq. yds. per 80 lb. bag.
Strength: Over 2,000 psi compressive strength.
Bag weight: 80 lbs.

Dens-Cote® one coat system

Georgia-Pacific Dens-Cote One Coat System fulfills its reputation as a system that provides quality walls for either residential or commercial constructions. The Dens-Cote one coat system is used whenever a strong durable finish with maximum speed and minimum material is desired. One application of only 3/32" minimum Dens-Cote Smooth Finish over Dens-Cote gypsum base is all that is needed to give lasting strength and beauty to any construction.

Dens-Cote plaster has very high strength and hardness characteristics in excess of 2,000 PSI compressive strength. This strength prevents nicks and scratches during the finish construction as well as providing a rich, hard surface that will stand up to abuse during occupancy.

Although Dens-Cote Smooth Finish is designed to be used over Dens-Cote Gypsum Base, it works well over porous masonry block or monolithic concrete.

application

Add one bag (80 lb.) of Dens-Cote Smooth Finish* to 3½ gal. of water with the mixer turning. Bring the mix to the desired consistency with additional water. A good working consistency will require approximately 4 gal. of water for 80 lb. bag.

Mix until the material is lump free. Do not overmix.

Dens-Cote Smooth Finish* normally has a 1¼ to 1½ hour setting time, so do not mix more than can be applied and finished in that length of time. Wash mixing equipment and carrying containers between batches.

Use 1"x1" minimum-perforated metal corner beads. Corner beads should be set to regulate plaster thickness at ⅞" maximum.

1. tape

Two methods are used to reinforce the joints; one uses glass fiber mesh tape and the other uses paper tape.

a. Glass fiber tape. Use 2½" wide glass fiber mesh to reinforce all flat joints and angles. Use 1"x1" minimum, perforated metal corner beads set to regulate plaster thickness at ⅞" maximum. Nail or screw corner bead to framing member. For best results, apply the mesh by embedding it with Dens-Cote. This is accomplished by troweling a layer of Dens-Cote over the joint area and pressing the glass fiber mesh into the plaster with a trowel. The mesh may be first stapled to the Dens-Cote Base, if desired. Self-sticking glass fiber tape may be used. 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 should be allowed to set but not dry 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 Plaster into the mesh.

** Finish coat may be smooth or textured as desired.*

b. Paper tape. May be applied with either G-P Speed-Set Joint Compound or G-P Ready-Mix Compound. Do not use any other type of joint compound. Other compounds are not compatible with Dens-Cote and may affect the bond or setting time of the Dens-Cote. If Speed-Set is used, be sure to follow the bag instructions carefully since this is a setting-type material and must be used before it has set. Lay about 1/16" coat of Speed-Set in the joint with a trowel or broad knife. Press the paper tape into the Speed-Set squeezing out the excess compound. Then double back, covering the tape with Speed-Set. Plastering should start as soon as the Speed-Set has hardened and before it dries. When using G-P Ready-Mix, follow the same procedure for taping, but compound must be thoroughly dry before plastering.

2. plastering

Trowel the first coat of Dens-Cote tightly over the entire wall or ceiling surface. This application should be uniform and about 1/16" thick. This coat must be allowed to take up for 10-15 minutes before doubling back with the leveling coat in order to obtain minimum thickness. Total thickness applied must be 3/32" thick minimum. The final troweling must be completed before the set takes place. Maintain a temperature of at least 55° F. in the working area for 24 hours before, during and after application. In hot weather reduce drafts and ventilation.

Plan the work so that it proceeds in an orderly fashion from one end of the surface to the other. This will promote a progressively uniform takeup. Install control joints at least every 40 lineal feet.

ens-Cote® two coat system

his system is designed for those no prefer the conventional type nishes but desire modern speed nd minimum material. The specially esigned Dens-Cote Base Plaster, ronger than conventional sanded asters, shall be applied ⅛" thick er Dens-Cote Base to achieve the est results. As in the one coat system, e Dens-Cote Base Plaster can also e used over porous masonry block ith excellent results.

pplication

lixing and taping instructions are ne same as outlined for the one coat system.

Trowel a layer of Dens-Cote Base Plaster over the joint area. Trowel the Dens-Cote Base Plaster tightly over he 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. Finish with lime putty and gauging for a conventional smooth finish, or use any sand float textured finish. Apply finish coat as soon as possible after base coat has set. If a hard durable finish is desired use Dens-Cote Smooth Finish.*

for best results

- Maintain a temperature of at least 50° F. 24 hours before, during and after application.
- In hot weather reduce drafts and ventilation by controlling door and window openings.

Dens-Cote® system precautions

- Use only clean drinkable water.
- Keep mixing equipment and tools clean at all times.
- Do not mix retarders, accelerators, or any other ingredients with Dens-Cote Plasters.
- Keep Dens-Cote Plaster from freezing until it is set and dry.
- USE ONLY G-P DENS-COTE BASE WITH THE DENS-COTE SYSTEM.
- Do not attempt to retemper Dens-Cote Base Plasters. Plan the work so that it proceeds in an orderly fashion from one end of the surface to the other. This will promote a progressively uniform takeup.
- If the total thickness of plaster in the one coat system is less than 3/32" ridging may occur.
- Install control points at least every 40 lineal feet.

**Finish coat may be smooth or textured as desired.*



Initial application over radiant heat cable. ▶

Dens-Cote® base
horizontal application

Apply ½" or ⅝" Dens-Cote Base at right angles to framing so that ends fall on framing members. Maximum framing spacing for radiant heat application is 16" o.c. when ½" Dens-Cote base is used, and 24" for ⅝". Nail with GWB-54 nails or equal, meeting ASTM C-514 having approximately ¼" heads. Length of nail should be that which will provide at least ¾" penetration into studs. Space nails on both edge and intermediate supports 7" o.c. (maximum) on ceilings. May also be applied over resilient channels.

Note: Firestop Dens-Cote Base shall be applied where fire ratings are needed.

alternate

Dens-Cote Base can be applied over wood joists or resilient channel that has been attached to wood joists for supports. Maximum spacing for ½" Base is 16" o.c.; maximum for ⅝" Base is 24" o.c. See Page 4 for nail and screw size and application instructions. Stagger end joints. End joints must fall on framing members.

application

1. joint reinforcement

Reinforce the joints. There are two methods of doing this. One using glass fiber mesh tape and the second using paper tape.

a. Glass fiber tape.. Use 2½" wide glass fiber mesh to reinforce all flat joints and angles. Use 1"x1" minimum, perforated metal corner beads set to regulate plaster thickness at ¼". Nail or screw corner bead to framing member. For best results, apply the mesh by embedding it with Dens-Cote. This is accomplished by troweling a layer of Dens-Cote over the joint area and pressing the glass fiber mesh into the plaster with a trowel. The mesh may be first stapled to the Dens-Cote Base, if desired. Self-sticking glass fiber tape may be used. 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 should 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 Plaster into the mesh.

b. Paper tape. May be applied with either G-P Speed-Set Joint Compound or G-P Ready-Mix Compound. Do not use any other type of joint compound. Other compounds are not compatible with Dens-Cote and may affect the bond or setting time of the Dens-Cote. If Speed-Set is used, be sure to follow the bag instructions carefully since this is a setting-type material and must be used before it has set. Lay about 1/16" coat of Speed-Set in the joint with a trowel or broad knife. Press the paper tape into the Speed-Set squeezing out the excess compound.

2. cable application

After joints are taped the electrician may install the cables. Cables must be stapled tautly at a minimum of 2" apart. Use cables rated at 2.75 watts per lineal foot at 240 watts.

application over radiant heating cable

- Trowel the first coat tightly over the ceiling using just enough Dens-Cote to fill in to the thickness of the Radiant Heat Cables.
- After first coat has thoroughly set, apply a leveling coat to cover the cables by at least ⅛". (Minimum total thickness ¼".)
- When the surface has become firm it may be troweled smooth or floated and textured as desired.
- The Radiant Heat Ceiling may be painted after it is completely dry.

for best results

- Maintain a temperature of at least 55° F. in the working area 24 hours before, during and after application of Dens-Cote plaster.
- In hot dry weather, reduce drafts and ventilation by covering door and window openings.
- Plan the work so that it proceeds in an orderly fashion from one end of the surface to the other. This will promote a progressively uniform takeup.

caution

- Use only clean potable water.
- Keep mixing equipment and tools clean at all times.
- Do not mix retarders, accelerators, or any other ingredients with Dens-Cote Radiant Heat Plaster.
- Keep Dens-Cote Plaster from freezing until it is set and dry.
- USE ONLY G-P DENS-COTE® BASE FOR DENS-COTE RADIANT HEAT PLASTER APPLICATION.
- Do not attempt to retemper Dens-Cote.
- Do not use the Radiant Heat system to dry the plaster or decoration used on the ceiling. When using the system for the first time, turn thermostat to room temperature and raise temperature 5 degrees each day until desired maximum operating temperature is reached.

Store in a dry place.

Dens-Cote general specifications

8/ **specifications**

1. Use G-P Dens-Cote Gypsum Base ½" or ⅝" thick by 4' wide with tapered edges and 8', 10' or 12' long. Apply ½" Dens-Cote Gypsum Base with nails meeting ASTM C-514 specifications 8" o.c. for side walls and 7" o.c. for ceilings, to framing members. For fire resistive ratings and other special installations, use ½" and ⅝" Firestop Dens-Cote Base. 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 or paper wallboard tape 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. Use G-P Triple Duty or Speed-Set Compound to embed paper tape. At the same time, fill all metal corner beads. These areas should be allowed to set before the over-all application is commenced. Corner beads designed for thin coat applications (not regular wallboard corner bead) should be set to regulate plaster thickness at 3/32" minimum. Nail or screw corner bead to framing member.
3. Trowel the first coat of 1 coat system 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 (10-15 mins.), double back with a leveling coat, which must 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, use 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 14-16 square yards (3/32" thick) per 80 lb. bag.

base plaster (two coat system)

- 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 textured finish.
- It a hard durable smooth finish is desired use Dens-Cote Smooth Finish.

for best results

- Maintain a temperature of at least 55° F. in the working area 24 hours before, during and after application.
- In hot weather reduce drafts and ventilation by covering door and window openings.
- Plan the work so that it proceeds in an orderly fashion from one end of the surface to the other. This will promote a progressively uniform takeup.
- A minimum thickness of 3/32" on one coat Dens-Cote applications must be maintained; ⅛" minimum on the two coat system.

G-P smooth finish lime (type N)

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.

G-P builders autoclaved lime (type S)

This finishing lime is made from the same quicklime as G-P 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 Builders Lime has more workability and plasticity than other finishing lime.

Beam fireproofing

Fireproofing of beams and columns is accomplished by abutting ⅜" G-P Type "X" Lath around the perimeter of the beam or column and plastering the thickness required for desired fire resistance rating.

The Type "X" lath is held by tying double strands of wire and spaced 16" o.c. around the lath. Corner beads applied by staples or tire wire provide ground for proper thickness as well as straight true corners.

Sanded plaster is used for fire ratings up to three hours. Lightweight aggregates provide fire ratings up to four hours. A four hour column rating requires two layers of ½" thick gypsum lath.

name	uses	coverage	thickness
neat unfibered	Scratch coat on solid surfaces. Brown coat on any surface.	(sanded 2:1) Gypsum Lath: 190-220 Metal Lath :00-130 Gypsum Tile: 210-240 Clay Tile: 165-200	½" ½" ⅝" ½" ⅝"
fibered	Scratch and brown coat on all surfaces except monolithic concrete.	(same as above)	(same as above)
Lite-Mix unfibered, fibered	Where lightweight desired. Ready mixed, add water only. 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"
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 not more than 4½ parts lime putty to 1 part gauging.	⅛"
G-P gauging	Mixed with lime for use over gypsum basecoat. Selected quality rock, light gray color. Gives hard, smooth surface. Available in quick set or slow set.	1600 (3:1) Mixed not more than 4½ parts lime putty to 1 part gauging.	⅛"
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 high purity rock. 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 applicable to Dens-Cote Gypsum Base. 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.	Up to 400	3/32" minimum
Dens-Cote® base plaster	First coat in two coat veneer plaster system. Finish may be smooth finish or lime putty mixed with gauging.	Up to 400	3/32" minimum
finishing lime			
smooth finishing (normal hydrated)	(Ohio Dolomite) Mixed with gauging, molding plaster or Keene's Cement to give plasticity, whiteness and bulk.	Up to 750	⅛"
builders (autoclaved)			

type and size	uses	description
plain lath		
Consists of core of gypsum rock reinforced with glass fibers sandwiched between two layers of special paper covering. Standard basic construction for all G-P Lath. SIZE: 16"x48", 16"x96", ⅜" or ½" thick (16 1/5"x48" West Coast only)	The standard gypsum plaster base for nail, staple or clip application to wood or steel framing.	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. Lath paper has water resistant inner plies which prevent the water in the plaster from soaking through and minimizes sagging of the lath and plaster. The layer against the core is porous and absorbent so the core will bond as the plaster sets.
long length lath		
The same structure as Plain Lath except in dimensions SIZE: Available in ½" or 1" thicknesses—24" x floor to ceiling lengths (12' maximum)	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 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. 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 lath clips. Resilient type clips reduce cracking and lessen sound transmission.
pinholath		
Plain Lath construction surface perforated with 1/16" dia. holes. Space ⅜" o.c. diagonally. SIZE: 16"x48", 16"x96", ⅜" or ½" thick (16 1/5"x48" West Coast only)	Specially designed for machine applied plasters. Fast, high, even water absorption speeds plaster application by holding plaster in place during rodding and darbying. When attached to ceilings by clips, three coat	G-P PINHOLATH is plain lath surface-perforated in manufacturing with pin holes no larger than 1/16" in diameter, spaced ⅜" o.c. diagonally. Its unique feature permits rapid suction of water from plaster mix to achieve perfect plaster consistency speeding plaster application. There is 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. The Scratch Coat should be dry before applying Brown Coat if high humidity condition exists. When Perimeter Clips are used on ceilings, Butt and Center Clips should be used.
type x lath		
Plain lath construction. SIZE: 16"x48", ⅜" or ½" thick (16 1/5"x48" West Coast only). Available also: pinholed and insulating.	Applications identical to Plain Lath. A wood stud partition faced with Type "X" lath and full thickness of plaster specified has one-hour fire rating.	G-P Type "X" Lath is plain lath with a special core formulation that provides necessary fire ratings for various constructions. Printed face identifies Type "X" Lath. **Application:** Type "X" Lath 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 lath clips. Resilient type clips reduce cracking and lessen sound transmission.
insulating lath		
Plain, Pinhole or Type X Lath with aluminum foil laminated on back. SIZE. 16"x48", ⅜" or ½" thick. Rounded edges.	Designed primarily for application to exterior walls and top floor ceiling. Back side must face a minimum air space of ¾" to develop reflective insulation value.	Constructed exactly as other laths this lath has aluminum foil laminated to the back. This foil reflected 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 installed the aluminum reflective surface must face a minimum air space of ¾" to develop reflective insulation value.
Dens-Cote® gypsum base		
A 4' wide, long-length, tapered edged, plain lath construction. It has a highly absorbent lath type face paper with surface pin holed. SIZE. 4'x8', 10' and 12'; ½" thick (⅜" and ⅝", ½" and ⅝" Type X Firestop on order)	Specially designed for reception of Dens-Cote Smooth and Texture Finish and other thin coat plasters.	It has a highly absorbent lath type face paper with the surface pinholed. 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.

gypsum plaster	fast machine application
G-P laths and plasters, 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 plasters and laths is an important factor to consider in specifying lath and plaster construction. Glass fibered plaster may be used when fibered plaster is specified.	Literally miles of glass fibers per bag 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. G-P plasters, designed for machine application, give greater construction economies and added design possibilities. Due to the plasticity and richness of these plasters they will not clog the mixer, hose or nozzle. Even the glass fibers go through easily.

description	uses	features
neat gypsum plaster		
(Unfibered, Fibered) Basecoat plasters bond securely to any standard plaster base including gypsum lath, metal lath and masonry units. Neat gypsum plasters require addition of aggregate and water.	1. Unfibered: is used for scratch coat on solid surfaces and for the brown (second) coat on any backing. 2. Fibered: is recommended to provide greater wet cohesion and to minimize droppings with open type lath.	Durability: Applied according to specifications it provides uniformly strong, stable walls and ceilings. Plasticity: Special scientifically controlled process maintains plasticity and easy workability. Fire Resistant: Gypsum's natural incombustibility offers superior fire protection.
lite mix plaster		
(Unfibered, Fibered, Masonry Mix) Basecoat plaster that is 50% lighter than Gypsum and sand plaster. Fibered mix contains glass fibers for added strength. Requires addition of water only.	1. Unfibered: is used for scratch coat on solid surfaces and for the brown (second on any backing). 2. Fibered: 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 clog mixer or to block the nozzle of the plaster gun. High Insulation Value: Provides greater insulation than sanded gypsum plaster.
gauging plaster		
Specially ground gypsums designed to blend with lime putty.	Mixed with lime to provide base for final wall and ceiling decoration. Usually over a gypsum plaster basecoat, 1/16" to ⅛" thick. Available in "Slow Set" or "Quick Set."	White Coat Finish: Satin Spar Gauging Plasters are very white and when properly mixed with lime putty they provide glossy smooth, flawless, surface of uniformly excellence, satin-like finish.
finishing limes		
Produced from ground quicklime by adding an exact amount of water which chemically converts the quicklime to calcium and magnesium hydroxides. Completely aerated to prevent lumping in the bag.	Precision ground to produce the correct fineness for maximum plasticity and workability. To be mixed with gypsum gauging or Keene's cement for lime putty white coat.	Supplies a white durable finish that preserves and beautifies interior walls and ceiling. Makes walls less brittle, less subject to cracks.
Keene's cement		
A high strength, "dead-burnt" white gypsum gauging plaster. Provides stronger, harder surface when substituted for gauging plaster in a lime mix. Less lime, harder finish. Available regular and Fast Set.	Because of denser, harder surface has higher resistance to abrasion and water absorption it is highly suitable for kitchens, bathrooms, hospitals, and any area where wear and moisture resistance are important.	Low Water Absorption: Because of high density, has low absorption. Various Finishes: Mixed with varying portion of lime, gives standard, medium hard or extra hard finishes.

plaster wall systems

technical data--fire ratings & sound transmission values for gypsum lath & plaster wall systems

12/

fire rating	STC	partitions thickness	plaster thickness*	weight lbs. per sq. ft.***	type base	plaster mix**
2" x 4" wood stud 16" on center						
1 Hour	40	5⅜"	½"	15	⅜" G-P Plain Gypsum Lath	Gypsum-Sand 1:2
1 Hour	—	5⅜"	½"	12	⅜" G-P Plain Gypsum Lath	Gypsum-Pearlite 1:2
45 Min.	40	5⅜"	½"	14.7	⅜" Plain Gypsum Lath	Gypsum-Sand 1:2, 1:2
1 Hour	—	5⅜"	½"	—	⅜" Plain Gypsum Lath	Gypsum-Wood Fiber
1 Hour	—	5⅜"	½"	—	⅜" Type "X" Gypsum Lath	Gypsum-Sand 1:2, 1:2
1½ Hour	—	5⅜"	½"	—	⅜" Type "X" Gypsum Lath	Gypsum-Perlite 1:2, 1:2
1 Hour	40	5⅜"	¾"	—	Metal Lath 3.4 D. M.	Gypsum-Sand 1:2, 1:3
2 Hours	41	5⅜"	¾"	—	Metal Lath 3.4 D. M.	Gypsum-Wood Fiber
1 Hour	40	5⅜"	¾"	—	Metal Lath 3.4 D. M.	Gypsum-Perlite 1:2, 1:2
1 Hour	40	5⅜"	¾"	—	Metal Lath 3.4 D. M.	Gypsum-Vermiculite 1:2
1 Hour	35	4¾"	3/32"	7.7	One layer ½" G-P Firestop Dens-Cote Base, both sides	Dens-Cote smooth finish
2 Hours	41	6"	3/32"	13.8	Two layers ⅝" G-P Firestop Dens-Cote Base, both sides	Dens-Cote smooth finish
solid partitions						
1 Hour	34	2"	¾"	16.5	½" Long Length Gypsum Lath	Gypsum-Sand 1:1, 1-2
1½ Hour	—	2"	¾"	—	½" Long Length Gypsum Lath	Gypsum-Perlite 1:2
2 Hours	37	2"	¾"	10.9	½" Long Length Gypsum Lath	Gypsum-Perlite or Vermiculite 1:2, 1:2
1 Hour	36	2"	1"	18.1	Metal Lath	Gypsum-Sand 1:2, 1:2
1 Hour	33	1½"	¾"	7.4	Metal Lath	Gypsum-Perlite 1:2
2 Hours	34	2½"	1¼"	—	Metal Lath	Gypsum-Perlite or Vermiculite 1:2, 1:2
metal stud						
1 Hour	44	5⅜"	½"	14	⅜" G-P Pinholath, 3⅝" Stud	Gypsum-Sand 1:2
1 Hour	—	5⅜"	½"	10	⅜" G-P Pinholath, 3⅝" Stud	Gypsum-Perlite 1:2
1 Hour	35	5⅜"	½"	16	⅜" Plain Gypsum Lath, 3⅝" Stud	Gypsum-Perlite 1:2
1 Hour	—	5⅜"	½"	16-21	⅜" Pinholath, 3⅝" Stud	Gypsum-Sand 1:2
1 Hour	35	5⅜"	½"	16-21	⅜" Type "X" Gypsum Lath 3⅝" Stud	Gypsum-Sand 1:2, 1:2
1 Hour	41	5⅜"	¾"	21	Metal Lath, 3⅝" Stud	Gypsum-Sand 1:2, 1:3
1 Hour	45	5⅛"	½"	11.8	⅜" Gypsum Lath type X attached with clips each side of 2½" steel stud	Gypsum-Sand 1:2
2 Hours	—	3⅞"	¾"	15	⅜" Type "X" Gypsum Lath 1⅝" Stud	Gypsum-Perlite 1:2, 1:2
1 Hour	38-40	3 1/16"	3/32"	7.0	One layer ⅜" Dens-Cote base, both sides, 1⅝" metal stud	Dens-Cote smooth finish
2 Hours	48-50	4 11/16"	3/32"	9.8	Two layers ½" Firestop Dens-Cote base, both sides—2½" metal stud	Dens-Cote smooth finish
2 Hours	49	6 5/16"	3/32"	12.8	Two layers ⅝" Firestop Dens-Cote Gypsum Base, both sides—3⅝" metal stud	Dens-Cote smooth finish
columns (steel)						
1 Hour	—	—	½"	—	⅜" Type "X" Gypsum Lath	Gypsum-Sand 1:2½
2 Hours	—	—	1⅜"	—	⅜" Type "X" Gypsum Lath	Gypsum-Sand 1:2, 1:3
2 Hours	—	—	1"	—	⅜" Type "X" Gypsum Lath	Gypsum-Perlite 1:2½
3 Hours	—	—	1⅜"	—	⅜" Type "X" Gypsum Lath	Gypsum-Perlite 1:2, 1:3
4 Hours	—		1½"	—	2 Layers ½" Plain Gypsum Lath	Gypsum-Perlite 1:2, 1:3
1 Hour	—		⅝"	—	Metal Lath	Gypsum-Sand 1:2, 1:3
4 Hours	—		1¾"	—	Metal Lath	Gypsum-Perlite 1:2, 1:3

*Face of Lath to Face of Finished Surface
**1 Part of Gypsum Plaster (100 Lbs.) to Cu Ft. Aggregate
***Includes entire assembly

plaster ceiling syste s

echnical data--fire ratings & sound transmission values for gypsum lath & plaster ceiling & floor assemblies

construction	fire rating	STC	thickness*	weight lbs. per sq. ft.	type base	plaster mix**
wood joists and floor						
	1 Hour	—	⅜"	—	⅜" G-P Pinholath	Gypsum-Perlite 1:2
	1 Hour	—	½"	—	*⅜" G-P Pinholath	Gypsum-Sand 1:2
	1 Hour	—	½"	—	*⅜" Type X Gypsum Lath	Gypsum-Sand 1:2
	45 min.	40	½"	12.5	⅜" Type "X" Gypsum Lath	Gypsum-Sand 1:2
	1 Hour	—	½"	—	⅜" Type "X" Gypsum Lath	Gypsum-Perlite 1:2
	1 Hour	34	⅝"	17.5	Metal Lath	Gypsum-Sand 1:2, 1:3
	1½ Hour	—	½"	—	Metal Lath	Gypsum-Perlite 1:2, 1:2
	1 Hour	—	3/32"	13.9	½" Firestop Dens-Cote Base, one layer nailed	Dens-Cote smooth or textured finish
	1 Hour	44	3/32"	13.0	½" Firestop Dens-Cote Base, one layer on resilient channel	Dens-Cote smooth or textured finish
	2 Hours	—	3/32"	16.9	⅝" Firestop Dens-Cote Base, two layers with resilient channel, 24" o.c. between layers	Dens-Cote smooth or textured finish
steel joists (2" floor slab)						
Furing Channels						
16" o.c.	1 Hour	—	⅝"	—	⅜" Type "X" Gypsum Lath (Clips)	Gypsum-Perlite 1:2
16" o.c.	1 Hour	—	⅝"	—	⅜" Type "X" Gypsum Lath (Clips)	Gypsum-Vermiculite 1:2, 1:2
16" o.c.	1½ Hour	—	1"	—	⅜" Type "X" Gypsum Lath (Clips)	Gypsum-Perlite 1:2, 1:2
16" o.c.	—	—	½"	—	⅜" Type "X" Gypsum Lath (Clips)	Gypsum-Perlite 1:2
12" o.c.	3 Hours	—	11/16"	—	⅜" Type "X" Gypsum Lath (Clips)	Gypsum-Perlite 1:2, 1:2
16" o.c.	3 Hours	—	9/16"	—	⅜" Type "X" Gypsum Lath Plus 1" Mesh	Gypsum-Perlite 1:2
12" o.c.	4 Hours	—	1"	—	⅜" Type "X" Gypsum Lath (Clips) Plus 1" Mesh	Gypsum-Perlite 1:2, 1:3
	2 Hours	—	¾"	—	Metal Lath	Gypsum-Sand 1:2, 1:3
	3 Hours	—	13/16"	—	Metal Lath	Gypsum-Perlite 1:2, 1:2
	4 Hours	—	1"	—	Metal Lath	Gypsum-Vermiculite 1:2, 1:2
steel floors 2 to 2½" concrete floor with suspended ceilings						
12" o.c.	3 Hours	—	½" on ceilings	—	⅜" Type "X" Gypsum Lath Plus Clips and Wire Reinforcing	Gypsum-Perlite 1:2
Assembly #1	4 Hours	—	1"	—	Metal Lath	Gypsum-Perlite 1:2, 1:3
2½" Concrete floor over	4 Hours	—	⅞"	—	Metal Lath	Gypsum Wood Fiber
metal lath over steel bar joists 24" o.c.	2 Hours	—	3/32"	39.4	½" Firestop Dens-Cote Base, one layer screwed metal furring 24" o.c.	Dens-Cote smooth finish
Assembly #2 2" Concrete floor on joists 24" o.c.	2 Hours	—	3/32"	37.3	⅝" Firestop Dens-Cote Base, one layer screwed metal furring 24" o.c.	Dens-Cote smooth finish

*Face of Lath to Face of Finished Surface **1 Part of Gypsum Plaster (100 Lbs.) to Cu. Ft. Aggregate

Note: *All tables are summaries 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 G-P 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.

Inconsistencies in test results are due to tests over a period of many years and variations in laboratory facilities.

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 many 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 Gypsum Division of the G-P 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.

Note: *Floor and Ceiling assemblies (Incombustible), G-P Firestop Dens-Cote Base, may be direct attached or suspended.*

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

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