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USG-596

The STRUCTO-LITE STORY

RED TOP* STRUCTO-LITE...
THE IDEAL BASE COAT PLASTER

UNITED STATES GYPSUM COMPANY

BB026 0645

*T.M. REG. U.S. PAT. OFF.

RED TOP STRUCTO-LITE plaster is a high quality base coat plaster formulated at the mill by proportioning a select expanded perlite with gypsum plaster. Perlite is a volcanic rock, which when heated quickly, expands to form a light weight non-combustible glass-like material of cellular structure. Its weight is about one-tenth the weight of sand. When used as an aggregate for plaster, properly graded and proportioned high quality perlite, such as the type used in STRUCTO-LITE, has many desirable qualities including insulation, fire resistance, light weight, resistance to cracking and good nail holding power.

STRUCTO-LITE is packaged in 80 lb. bags (regular) and 67 lb. bags (masonry) and requires the addition of clean water only on the job.

STRUCTO-LITE OFFERS PLUS FEATURES TO THE PLASTERING TRADE

Better Walls

Strong—Compressive strength of STRUCTO-LITE exceeds that of sanded plaster mixed 1:3.

Uniform Controlled Suction—Assured by suction resistant formula. The suction of STRUCTO-LITE Plaster to finish coat application is similar to that of a gypsum-sand basecoat.

Uniform Set—Assured by stabilized set and ready-mix control.

Proper Proportioning—Assurance is given of proper proportioning of cement plaster and a well-graded, density-controlled perlite aggregate.

Better Working

Light weight—STRUCTO-LITE Plaster weighs about half as much as sanded plaster proportioned 1:3.

Quick Drying—Under similar drying conditions STRUCTO-LITE dries in less time than sanded plaster.

Easier Working—More yardage per hour. Plasterers don't tire as readily—half the weight takes half the effort.

Easier to Handle

Easier to Mix—STRUCTO-LITE saves time—no sand to order, thaw, shovel and clean up. Easy to clean mixer—twice a day is sufficient. Because of its light weight, it lends itself readily to hand mixing in a mortar box.

Easy to Hoist—About one half the weight of sand and plaster.

Easy to Order—Estimate coverage at 140 to 150 sq. yds. per ton (2 or 3 coat work over gypsum lath) and order bags required. No sand to order.

Less Dusting—STRUCTO-LITE Plaster, because of mill mixing of perlite and plaster, does not "dust" excessively when dumped into box or mixer.

Economical

Less Waste—No sand to leave when job is completed. Less mortar lost from droppings due to light weight and easy handling.

Cost—Material cost is equal to job mix light weight aggregate and plaster.

Unit Responsibility

One manufacturer responsible for the plaster slab.

Safety

STRUCTO-LITE Droppings on scaffolding are not as slippery as vermiculited plasters.

STRUCTO-LITE OFFERS PLUS FEATURES TO ARCHITECTS, BUILDERS AND OWNERS

Uniformly Strong Walls

Assured because of proper proportioning of cement plaster with a well graded, controlled density perlite aggregate and a mill-controlled set that insures maximum strength in the plaster slab.

Uniform Hardness

Assured because the perlite in STRUCTO-LITE Plaster is manufactured to conform with exacting specifications for density, strength and gradation, and is thoroughly mixed with the cement plaster at the mill.

Fifty Per Cent Less Weight

Perlite aggregate saves over fifty per cent weight in the finished plaster (less on the structural members

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and framing). Real savings in foundation and framing costs are possible.

Fire Resistance

Higher fire resistance ratings than those obtainable with sand are possible with STRUCTO-LITE. Ideally suited where building code requirements demand maximum fire ratings not attainable with sand.

For example (for complete listing see AIA folder):

ONE HOUR FIRE RATING

Following bases plastered to ½" grounds with STRUCTO-LITE.

1. ⅜" Perforated Rocklath Plasterbase nailed to wood studs and joists for walls and ceilings.
2. ⅜" Perforated Rocklath Plasterbase attached to wood studs 16" o.c. with R-1 Resilient Clips for partitions.
3. ⅜" Perforated Rocklath Plasterbase attached Trussteel Studs with TR-1 Resilient Clips.

PLASTERED TO ⅝" GROUNDS

Steel joists 24" o.c.; 2½" concrete over ⅜" riblath top of joists; ⅜" Perforated Rocklath attached with Brace-Tite Clips to ¾" channels 16" o.c. wire-tied to joists.†

TWO HOUR FIRE RATING

Same construction as "†" above plus 14 ga. diagonal wire between field clips plastered to ½" grounds with STRUCTO-LITE.

THREE HOUR FIRE RATING

Same construction as "†" above except ¾" channels, 12" o.c., plastered to ⅝" grounds with STRUCTO-LITE.

NOTE: In general, fire ratings of gypsum-perlite plasters are the same as similar proportions and thickness of gypsum-vermiculite plasters.

STRUCTO-LITE TECHNICAL INFORMATION

1. Physical Data—Base Coat Plasters

	Sanded 1:3	Sanded 1:2	STRUCTO-LITE (Regular)
Compressive Strength (Lbs. per sq. in. dry)	650	1065	900
Mortar Consistency (Lbs. of water per 100 lbs. of plaster)	75	60	63
Mortar Weight (Lbs. per sq. yd.) 7/16" thick on Rocklath			
Dry	34	33	17
Wet	40	39	24

NOTE: All figures given are from typical or average tests.

2. "k" Factor

1.74 (approximate) or about 3 times the insulation value of a gypsum-sand basecoat.

3. Coverage

A. STRUCTO-LITE (Regular formula) 80 lb. ppr. bags.

1. Gypsum lath (2 or 3 coat work), ½" grounds (over face of lath)—approximately 140 to 150 sq. yds. per ton.
2. Metal lath (3 coat work, scratch and brown coat), ⅝" grounds (over face of lath)—75 to 85 sq. yds. per ton.

B. STRUCTO-LITE (masonry formula) 67 lb. ppr. bags.

Pyrobar—Partition tile 2 coat work—½" grounds—140 to 150 sq. yds. per ton.

Other Masonry Bases—⅝" grounds—2 coat work—120 sq. yds. per ton.

4. Mixing

STRUCTO-LITE Plaster, because of its light weight and the thorough blending of the ingredients during manufacture, readily lends itself to machine or hand mixing. It is particularly desirable on large jobs where basecoat plaster is to be mixed by hand in a mortar box. STRUCTO-LITE Plaster requires approximately six gallons of water per bag.

5. Warehousing

STRUCTO-LITE Plaster can be warehoused under normally good conditions as long as other gypsum plasters and still retain its excellent working characteristics and stable setting time.

6. Machine Application

STRUCTO-LITE FOR MACHINE APPLICATION is manufactured and formulated especially for use in all types of plastering machines.

CAUTION! STRUCTO-LITE FOR MACHINE APPLICATION MUST NOT be used for hand application.

7. Precautions

a. Masonry STRUCTO-LITE is formulated for use over masonry bases only and should not be used over any other plaster base. Use the scratch-double back method of application over masonry bases, allowing the scratch coat to draw up slightly before doubling up basecoat.

b. When it is necessary to use regular STRUCTO-LITE Plaster over masonry surfaces, the plaster base shall be sprayed with sufficient water to reduce suction. Application of STRUCTO-LITE should follow instructions outlined in preceding paragraph, or separate scratch and brown coats may be applied.

c. STRUCTO-LITE should not be used to plaster over radiant panel heating systems.

d. STRUCTO-LITE should not be used where contact with excessive moisture or water is expected.

e. STRUCTO-LITE Plaster is an interior basecoat plaster and should not be used on exterior surfaces unless Special Recommendations for exterior use of gypsum plasters are carefully followed.

f. Because of the possibility of condensation or water seepage, STRUCTO-LITE like any plaster should not be applied directly to the interior side of solid exterior masonry walls. Such walls should be furred before plastering.

g. Lime-Keenes-sand or gypsum-sand float finishes are preferred over STRUCTO-LITE basecoats. If smooth trowelled gauged lime putty is to be used, it must include either 50 lbs. of fine silica sand or ½ cu. ft. of perlite fines per 100 lbs. of gauging.

h. STRUCTO-GAUGE finishes should not be used over STRUCTO-LITE basecoats.

NOTE: Since methods and conditions of application and use are beyond our control, the United States Gypsum Company will not be responsible for failure of its products when not used according to our directions and specifications.

Above Trade Names, STRUCTO-LITE, ROCKLATH, TRUSSTEEL, PYROBAR, STRUCTO-GAUGE, BRACE-TITE are registered in U.S. Pat. Off.

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