

Red Top® Gypsum Plaster



Multi-purpose conventional basecoat plaster applications

- The most popular conventional gypsum basecoat plaster in the building industry.
- For hand or machine application, or both; for use with sand or lightweight aggregates.
- For plaster wall and ceiling assemblies requiring high fire-resistant and sound-isolating performance.

Description

RED TOP® Brand Gypsum Plaster is a “neat” gypsum basecoat plaster requiring the addition of aggregate (sand, vermiculite or perlite) and water on the job. RED TOP Gypsum Plaster is suitable for use either by hand or machine application. RED TOP Gypsum Plaster can be applied to all standard lath and masonry plaster bases.

RED TOP Gypsum Plaster provides a plastic working material that will conform to varied designs and help achieve durability in walls and ceilings. It can be applied on gypsum and metal lath, gypsum and clay tile, concrete and cinder blocks, and other approved plaster bases.

Fire Protection Gypsum plaster, properly proportioned with approved aggregates and used with specified plaster bases, provides excellent fire protection.

Sound Isolation Gypsum plasters can offer sound transmission loss characteristics suitable for most requirements. Sanded basecoat plaster provides optimum results.

Control of Set RED TOP Gypsum Plaster is formulated for use with properly graded, clean and washed aggregates, and varying climatic conditions and job conditions. The quicker a gypsum plaster sets, the stronger the basecoat.

Limitations

1. Not recommended for use with perlite aggregate when machine applied, with vertical lift over 30 ft. or when hose length is over 150 ft.
2. Where sound isolation is the prime consideration, only sand aggregate should be used.
3. Over interior monolithic concrete, USG™ Plaster Bonder must be applied before plastering.
4. Gypsum plasters should not be used where they will come into contact with water or excessive moisture.
5. Plaster application on masonry or concrete walls, or ceilings that have been coated with bituminous compounds or other waterproofing agents, is not recommended. The interior side of exterior walls should be furred and lathed prior to plastering to prevent seepage and condensation.
6. Basecoat plasters must not die or stop against a hollow metal door frame return. Dampen trim return vibration by grouting, and by using special anchors. The grout must be raked out to allow lath and plaster to be inserted into the frame.

Directions

Preparation

In cold weather, all glazing should be completed and the building heated to a minimum of 55 °F (13 °C) before gypsum base or lath and plaster installation. Building temperature must be maintained in uniform range above 55 °F for an adequate period prior to application of plaster, while plastering, and until plaster is dry. Heat should be well distributed in all areas, with deflection or protective screens used to prevent concentrated or irregular heat on the plaster surfaces.

Ventilation and air circulation should be provided to dry plaster after application for proper set. This can be accomplished by keeping windows open sufficiently to provide air circulation in glazed buildings; in enclosed areas lacking normal ventilation, mechanically remove moisture-laden air.

If glazed sashes are not in place and the building is subject to hot, dry winds or temperature differentials from day to night of 20 °F (11 °C) or more, openings must be screened with cheesecloth or similar material.

Mixing RED TOP Gypsum Plaster is mixed with various types of aggregate for hand or machine application, depending on the strength and other performance characteristics required for the specific project. See the tables under "Product Data" for mix proportions and performance. Mix basecoat plaster by hand or in a mechanical mixer to a uniform consistency.

Applying Basecoat Apply the basecoat plaster by hand or machine. Unit masonry surfaces that exhibit high suction shall be moderately wetted immediately before plastering. Monolithic concrete surfaces should be treated with USG™ Plaster Bonder prior to basecoat application.

For two-coat work over gypsum lath, masonry and monolithic concrete, apply the RED TOP Gypsum Plaster base (first) coat with sufficient material and pressure to form a good bond to the base and to cover well; then double-back to bring the plaster out to grounds. Straighten to a true surface with a rod and darby without the use of additional water and leave rough to receive the finish (second) coat.

For three-coat work, apply the RED TOP Gypsum Plaster scratch (first) coat with sufficient material and pressure to form good full keys on metal lath, and good bond on other bases, and then cross-rake. Apply brown (second) coat after scratch (first) coat has set firm and hard. Bring out to grounds and straighten to a true surface with a rod and darby without the use of additional water. Leave the brown coat rough to receive the finish (third) coat.

Product Data	Technical Data	RED TOP Gypsum Plaster	Mix Proportion ⁽²⁾	Compressive Strength psi—dry ⁽¹⁾	Weight lb./cu. ft.—dry	Conductivity (k)
		mixed with sand	100:2	875	107	5.51
mixed with sand	100:2-1/2	750	108	—		
mixed with sand	100:3	650	109	5.60		
mixed with perlite	100:2	700	48	1.64		
mixed with perlite	100:3	525	41	1.31		
mixed with vermiculite	100:2	465	48	1.74		
mixed with vermiculite	100:3	290	41	1.42		

(1) Average laboratory results. Figures may vary slightly for products from individual mills. Tested in accordance with ASTM C472.

(2) Aggregate is in cu. ft. per 100 lbs. of plaster.

Application Coverage ⁽¹⁾	RED TOP Gypsum Plaster	Applied over a base of:		
		Gypsum Lath sq. yd./ton	Metal Lath sq. yd./ton	Unit Masonry sq. yd./ton
mixed with sand ⁽¹⁾	180-232	114-148	140-181	
mixed with perlite ⁽¹⁾	176-224	112-143	137-174	
mixed with vermiculite ⁽¹⁾	171-215	109-137	133-168	

(1) Range; varies by volume of aggregate mixed with plaster (2.0, 2.5 or 3.0 cu. ft.).



Use of Aggregates with Gypsum Plasters	Plaster Base	Number of Coats	Types of Coats	Maximum Quantity of Aggregate in cu. ft. to be Used with 100 lbs. of Neat Gypsum Plaster			
				Under Smooth Trowel Finishes		Under Texture Finishes	
				Sand ⁽¹⁾	Perlite	Sand ⁽¹⁾	Perlite
Gypsum Lath		3	scratch	2	—	2	2
			brown	3	—	3	3 ⁽²⁾
			basecoat	2-1/2	2	2-1/2	2
Metal Lath		3	scratch	2	—	2	2
			brown	3	—	3	2
Unit Masonry		3	scratch	3	3	3	3
			brown	3	3	3	3
			basecoat ⁽³⁾	3	3	3	3

(1) Approximately six No. 2 shovels of sand equal 1 cu. ft. One shovel equals 15 lb.
 (2) Only if applied 1" thick; otherwise 2 cu. ft.
 (3) Basecoat applied scratch and double-back.
Note: In a construction system with plaster applied over metal lath, perlite and vermiculite aggregates are not recommended for use in the basecoat plaster unless a float texture or acoustical finish is used.

Compliance with Standards: Complies with ASTM Designation C28; RED Top Gypsum Plaster meets Federal Specification SS-P-00402B, Type II.
Thermal Coefficient of Expansion (Unrestrained): Sanded gypsum plaster (sanded 100:2, 100:3)— 7.0×10^{-6} in. per in. per degree F (40-100 °F); 12.6×10^{-6} mm per mm per °C (4-38 °C).
Hygrometric Coefficient of Expansion (Unrestrained): Sanded gypsum plaster (sanded 100:2, 100:3)— 1.5×10^{-6} in. per in. per % relative humidity (5-90% R.H.); 1.5×10^{-6} mm per mm per % relative humidity (5-90% R.H.).
Storage: Store material in a cool, dry place. Avoid direct sunlight. Maintain temperature above 40 °F (4 °C).
Shelf Life: Up to 6 months under protected storage conditions. Rotate stock.
Availability and Cost: RED Top Gypsum Plaster is distributed throughout the United States. Contact a United States Gypsum Company sales office or sales person for additional information.
Packaging: RED Top Gypsum Plaster is available in 50 lb. (22.7 kg.) bags.

Submittal Approvals:	Job Name	
	Contractor	Date

WARNING!

When mixed with water, this material hardens and becomes very hot - sometimes quickly. DO NOT attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Dust may cause irritation to eyes, skin, nose, throat and upper respiratory tract. Avoid irritation by reducing exposure to dust. Use in a well-ventilated area or provide sufficient local ventilation. Do not ingest. If dusty, wear a NIOSH/MSHA-approved dust respirator. Wear eye protection. If eye contact occurs, flush

thoroughly with water for 15 minutes. If irritation persists, call physician. Wash with soap and water after use. If ingested, call physician. Product information and MSDS: (800) 507-8899 or www.usg.com.

KEEP OUT OF REACH OF CHILDREN.

Trademarks

The following is a trademark of United States Gypsum or a related company: Red Top, USG.

Note

Products described here may not be available in all geographic markets. Consult your U.S. Gypsum Company sales office or representative for information.

Notice

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Safety First!

Follow good safety and industrial hygiene practices during handling and installation of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.

