PLAINTIFF'S EXHIBIT
USG-1926

UNITED STATES GYPSUM

fireproofing

d

1746

RED TOP* FIRECODE* Plaster

A.I.A. File ... 21-C-1/29-E

fire rating	description	test no.	relative cost index	folder reference
column applications				
4 hrs.	RED TOP FIRECODE Plaster Col Fireprfg—spray appl direct—2½" uniform thickn around 10" 49# col	UL Des 25-4 hr (f)	37	d-1746
3 hrs.	RED TOP FIRECODE Plaster Col Fireprfg—spray appl direct—2⅛" uniform thickn around 10" 49# col	UL Des 13-3 hr (f)	31	d-1746
beam applications				
5 hrs.	RED TOP FIRECODE Plaster Beam Fireprfg—spray appl direct—1¼" uniform thickn around 8 wf beam—2½" conc on blend system stl flr	UL Des 37-5 hr (f)	42	d-1746
4 hrs.	RED TOP FIRECODE Plaster Caged Beam Fireprfg—9 ga galv wire wrapped around 8 wf beam 12" & 18" o.c. bent over bottom flange—3.4# dm met lath—fireprfg spray appl 1" thickn to lath—2½" conc on corrug & cellular stl flr	UL Des 23-3 hr (f)	56	d-1746
3 hrs.	RED TOP FIRECODE Plaster Beam Fireprfg—spray appl direct—¾" uniform thickn around 8 wf beam—2½"conc on fluted & cellular stl flr	UL Des 229-2 hr (f)	25	d-1746
deck and floor applications				
3 hrs.	RED TOP FIRECODE Plaster Deck & Flr Fireprfg—spray appl direct—2½" conc on 3" fluted & flat cellular stl flr—¾" below cells—⅞" in reentrant space—¾" on flat cellular section—addit thickn of ⅝" below cells & flat cellular secs & 2⅛" in reentrant space under trench header ducts (Can be used as (1) blend system as tested (2) full cellular, or (3) non-cellular assembly)	UL Des 70-3 hr (f)	flat cell 16 fluted 27	d-1746
3 hrs.	RED TOP FIRECODE Plaster Deck & Flr Fireprfg—spray appl direct—2½" conc on cellular stl flr—⅞" below cells—¾" betw cells—1" below header ducts	UL Des 22-3 hr (f)	full cell 21	d-1746
3 hrs.	RED TOP FIRECODE Plaster Deck & Flr Fireprfg—spray appl direct—2½" conc on corrug & cellular stl flr—¾" on flutes—1⅝" below header ducts	UL Des 23 & 24-3 hr (f)	20	d-1746
3 hrs.	RED TOP FIRECODE Plaster Deck & Flr Fireprfg—spray appl direct—2½" conc on ribbed & cellular stl flr—¾" on ribs—1" below header ducts	UL Des 32-3 hr (f)	20	d-1746
2 hrs.	RED TOP FIRECODE Plaster Deck & Flr Fireprfg—spray appl direct—2½" conc on 3" fluted & cellular stl flr—¾" uniform thickn	UL Des 68-2 hr (f)	flat cell 16 fluted 24	d-1746
2 hrs.	RED TOP FIRECODE Plaster Deck & Flr Fireprfg—spray appl direct—2½" conc on cellular stl flr—½" uniform thickn	UL Des 10-2 hr (f)	15	d-1746
2 hrs.	RED TOP FIRECODE Plaster Deck & Flr Fireprfg—spray appl direct—2½" conc on 1½" fluted & cellular stl flr—⅞" below cells—½" in reentrant space—¾" on flat cellular section—addit thickn of ⅞" under trench header ducts	UL Des 229-2 hr (f)	flat cell 8 fluted 14	d-1746

description

RED TOP FIRECODE* "V" Plaster is a cementitious gypsum product for direct spray application to steel floor units, steel beams and steel columns to provide the necessary fire protection. It is lightweight, nonshrinking, and sets and dries with a crusty surface. Requiring only the addition of water, the mixing and application is foolproof; no bonding agents, no wetting of the steel, no tamping to obtain the proper density and no overspray to control dusting are necessary. All published test data, fire ratings and physical properties are based on one basic product formulation.

Although not generally considered a finished surface, a pleasing spray texture can be accomplished. AUDICOTE* Acoustical Plaster may be applied over RED TOP FIRECODE "V" Plaster as a finish coat, or the FIRECODE "V" may be spray painted using TEXOLITE* Standard paint.

function and utility

A practical, lightweight, direct application, economical fireproofing plaster which can be applied by a non-franchised applicator using conventional plastering machines.

RED TOP FIRECODE "V" Plaster can be job sprayed without the irritating annoyance of a widespread overspraying and dusting which litters the facades of adjoining buildings.

RED TOP FIRECODE "V" Plaster meets and exceeds the minimum requirements of the revised General Services Administration Guide Specification for Sprayed Fire Protection. Tests conducted and reported by three nationally recognized laboratories: Robert W. Hunt Company, Boyle Engineering Laboratory, and Underwriters' Laboratories, Inc.

limitations

RED TOP FIRECODE "V" Plaster:

1. Should be applied under conditions acceptable to plastering—protected from freezing.
2. Cannot be considered a basecoat plaster; a lime putty finish coat should not be specified since the two products are not compatible.
3. Is not recommended for use as a surface which will be subjected to continuous abrasion.
4. Is not recommended for use where it will be subjected to continuous moisture conditions.
5. Is not recommended for use where a heavy, intensive, continuous vibration is expected (normal vibration expected in a building for occupancy is not considered critical).

technical data

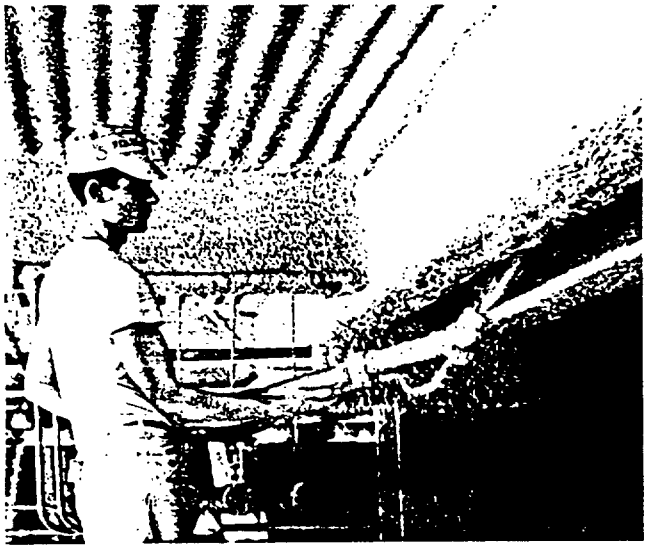
Fire Hazard Classification—RED TOP FIRECODE "V" Plaster is listed under Underwriters' Laboratories, Inc. Hazard Classi-

(continued on page 4)

BB016 0126

A.I.A. File No. 21-C-1/29-E

*Reg. U.S. Pat. Off.



4. Fireproofing Plaster

RED TOP FIRECODE* "V" Plaster is a ready-to-use gypsum plaster for spraying directly to steel floor units, beams and columns, to provide fire protection. It is lightweight and non-shrinking, requiring the addition of water only. No bonding agents, lathing or hand tool operations are required in application. It can also be applied over metal lath to form a fire-resistive enclosure containing structural members, piping, ductwork or electrical conduits.

Use of this lightweight fireproofing plaster in multi-story buildings in place of the heavy masonry formerly used to protect the steel structure greatly reduces the dead load and enables the designing engineer to use substantially lighter, less costly steel members. This new concept in building design is not only lower in applied cost, but provides increased flexibility in design, beauty, utility and safety.

RED TOP FIRECODE "V" Plaster provides fire-resistive ratings on all major types of steel floor units, and on steel beams and columns; meets requirements of NFPA pamphlet No. 220 and Guide No. 40, U-18.3. For fire resistance, sound absorption, density and insulation characteristics, see USG Folder d-1746. RED TOP FIRECODE "V" also protects shop-primed steel from corrosion and eliminates the need for a job primer coat.

Although not generally considered a finished surface, a pleasing spray texture can be accomplished. Acoustical Plaster may be applied as a finish coat; or, the FIRECODE "V" surface may be spray-painted with TEXOLITE Standard Paint.

Limitations: (1) RED TOP FIRECODE "V" Plaster must be applied under conditions acceptable to plastering—protected from freezing, and the metal surface temperature must be above freezing; (2) it is designed for use on ceilings, beams or columns not subject to abuse, moisture or excessive vibration.

5. Special Plasters

RED TOP Moulding Plaster is used in specialized work such as cast ornamental enrichments or running cornices. The grind is conducive to fine detail; controlled set helps obtain exact reproduction. Available in white and grey colors.

RED TOP Casting Plaster, for general casting shop use, produces excellent detail in fine plaques and art statuary. Rapid drying, with good expansion control, plasticity, maximum surface hardness, strength. Only water is added.

general plastering specifications

I. scope—Unless otherwise shown on the drawings, all walls and ceilings shall be plastered as herein described.

II. general provisions—In cold weather, the temperature of the building shall be maintained in the uniform range above 55° F. for an adequate period prior to the application of plaster, while the plastering is being done, and after the plaster is dry. The heat shall be well distributed in all areas, with deflection or protective screens used to prevent concentrated or irregular heat on plaster areas near source. When required, heat shall be furnished by . . .

Proper protection should be provided during plastering for finished door and window frames and other designated areas which do not receive a plaster finish.

Ventilation shall be provided to properly dry the plaster during and subsequent to its application. In glazed buildings, this shall be accomplished by keeping windows open sufficiently to provide air circulation; in enclosed areas lacking normal ventilation, provisions must be made to mechanically remove moisture-laden air.

If glazed sash are not in place and the building is subjected to hot, dry winds or temperature differentials from day to night of 20°F or more, openings shall be screened with cheesecloth or similar material.

III. surface preparation

a. Monolithic concrete to which RED TOP Plaster Bond is to be applied shall be free of dirt, dust, grease, wax, oil or other unsound surface conditions. Laitance and efflorescence shall be chemically removed.

b. Monolithic or unit masonry surfaces that exhibit high suction may be moderately wetted immediately before plastering.

c. Where RED TOP AUDICOTE Acoustical Plaster is indicated for application direct to smooth monolithic concrete, reinforcing bar chair legs shall be either galvanized or coated with rust inhibitive paint, and use of nails or other raw steel against forms or surface of concrete held to a minimum. Where metal is exposed in spite of these precautions, and where AUDICOTE is to be applied directly against corner beads or other metal accessories, the metal should be treated with one coat of aluminum paint.

IV. grounds—Plaster thicknesses shall be as shown on plans; however, in no case shall the grounds be less than:

USG Metal Lath—⅝" (from face of lath)
ROCKLATH Plaster Base—½"
Long Length ROCKLATH—¾"
PYROBAR Partition Tile or other Masonry Units—⅝"
Monolithic Concrete Ceilings—⅛" (⅜" maximum)
Monolithic Concrete Walls—⅛" (⅜" maximum)
IMPERIAL Plasters—1/16"" to ⅛"
RED TOP Radiant Heat Plaster—¼" (over special gypsum base); ⅜" (over monolithic concrete)
HI-LITE or AUDICOTE Acoustical Plaster—½" (over concrete); 13/16" (over gypsum or metal lath)

V. materials—Plaster and all cementitious material shall be stored under cover, up off the ground or floor, and kept dry until ready for use. All materials herein specified shall be manufactured by the UNITED STATES GYPSUM COMPANY.

a. Basecoat Plaster shall be: (STRUCTO-BASE Cement Plaster) (RED TOP Wood Fiber) (RED TOP Cement Plaster) (STRUCTO-LITE) (IMPERIAL H.T.A. or M.A.).

b. Aggregate shall be: (Sand) (Perlite) meeting ASTM C-35 requirements. Sand for float finishes shall be a graded silica sand passing a (30 mesh) (20 mesh) screen.

c. Water shall be clean and fit to drink, free from oil, acid, alkali or vegetable materials.

d. Bonding Agent shall be: RED TOP Plaster Bond.

e. Finish Lime shall be: (IVORY) (GRAND PRIZE*) (RED TOP).

f. Gauging Plaster shall be: (STRUCTO-GAUGE) (Keenes Cement) (STAR) (CHAMPION) (RED TOP).

g. Prepared Finish shall be: (DIAMOND Finish) (IMPERIAL H.T.A. or M.A. Finish) (RED TOP Radiant Heat Plaster) (ORIENTAL Interior White Finish) (RED TOP Concrete Finish).

BB016 0127

*Reg. U.S. Pat. Off.