

Grand Rapids
Mr. J. B. Moss

MR. HOEK
PLS HANDLE
JH 8/7

PLAINTIFF'S EXHIBIT

GP-498

August 3, 1961

Mr. B. Swytnyk
Underwriters' Laboratories Inc.
P. O. Box 247
Northbrook, Illinois

Re: File No. R4491 & 61K178

Dear Mr. Swytnyk:

The formulation of the fireproofing plaster to be used on the floor & ceiling construction is as follows:

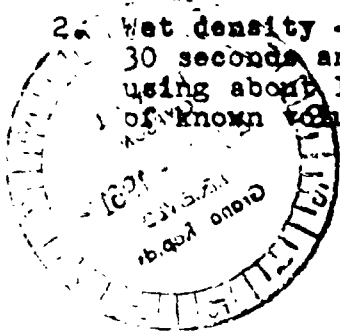
- 3.67 cu. ft. of perlite (8½ to 9½ lbs. per cu. ft.)
- 48 lbs. calcined gypsum
- 14 lbs. 7D3 asbestos
- 5 lbs. High early strength cement
- 0.2 lbs. Ultrawet DS
- 0.15 to 0.2 lbs. commercial retarder

The physical characteristics of the material will be about as follows:

- Water to plaster ratio - 130-140 parts water to 100 parts plaster
- Setting time - 12 to 16 hours
- Wet density - 39 to 44 lbs. per cu. ft.
- Dry density - 28-32 lbs. per cu. ft.

Procedure for making tests:

1. Setting time - Add 135 cc water to a quart mixing vessel, add 100 gms plaster, soak for 30 seconds and stir for 30 seconds. Place mixed plaster inside a brass or similar ring, 3¼ inches and about 4 inches in diameter; the ring resting on a clean glass plate. Strike off the plaster level with the top of the ring, and determine the setting time with a 1¼ lb. Gillmore needle; set being called when the needle fails to penetrate to the shoulder. Test each hour and determine set to the nearest hour.
2. Wet density - Add 135 cc water to a quart mixing bowl, soak 30 seconds and mix for 2 minutes with a spatula (1" x 4" blade), using about 100 strokes per minute. Place plaster in a vessel of known volume, weigh, and determine wet density.



The butyl phosphate - DEACONER

SGP 0019047

Mr. B. Swytynk

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3. Dry density - Add 135 cc water to a quart container, add 1 cc of octyl alcohol, and 100 gms of the plaster. Soak 30 seconds and stir for 2 minutes as in #2, place in 2 inch cube molds, puddling to remove air voids as covered in ASTM C26 for making compressive strength. Store in humidity cabinet until set - usually 24 hours is sufficient; then remove and dry as in C26 and determine dry density. The octyl alcohol is a defoaming agent and permits determination of the dry density very similar to that of the plaster after it is applied by means of a plastering machine sprayer.

We would suggest you have your inspector be in Grand Rapids early in the week of August 21, to observe running the material to be used in the test. Your inspector will, of course, advise Mr. Moss at our Grand Rapids plant when he will be there.

You have set up label service on similar products made by our competitors, and we can be guided in part, at least, by the types of tests required in their inspection services. We shall be pleased to hear any suggestions you care to make.

Very truly yours,

BESTWALL GYPSUM COMPANY

CGS

C. G. Shuttleworth
Chief Chemist

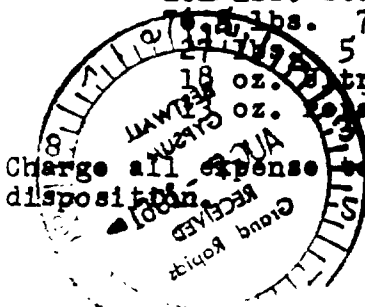
CGS/wd

CC: Mr. J. B. Moss - Grand Rapids ✓

Will you please make up a trial charge as follows and send me a bag as soon as convenient, so that we can test before the U.L. inspector arrives. Use plain valve bags, if available, otherwise sack in Lite Acoustical bags, marking plainly what it is.

Batch: 20 cu. ft. perlite (8½ to 9½ lb.)
262 lbs. stucco GR-52
135 lbs. 7D3 asbestos
5 oz. Lumnite Cement - Universal Atlas - or equal
18 oz. strawet DS
18 oz. retarder

Charge all expense to R & D #222. Hold balance of charge until we advise disposition.



Shipped to Mr. Shuttleworth 8/14/61
P. H. H.

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