

ZONOLITE DIVISION

7096365

TO: District Managers November 1, 1972
FROM: R. O. deBastian
SUBJECT: Mono-Kote 5 Announcement

Gentlemen:

Attached is a copy of an announcement sent to ~~major~~
Mono-Kote applicators in the Mid-West Region. Below
is a list of those in your district that have received
it.

We will be sending you a supply of these announcements
which should be hand carried to the remainder of your
customers. Your people should also discuss the
announcement with the people receiving it from this
office.

Very truly yours,



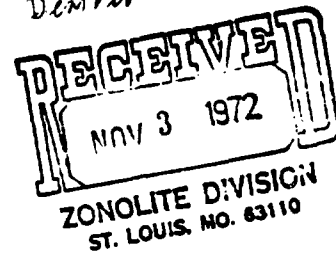
R. O. deBastian

ROD:dj

Just the 2.

- 1) *Nichols*
- 2) *Schweningerdt* *Putman*
- 3) *E. J. Walters* *Putman*
- 4) *O'Quinn* *Denney*

*For your info
Chuck*



25055671

7092297

MONOKOTE
CONSTRUCTION MATERIALS DIVISION

October 23, 1972

ZONOLITE MONOKOTE APPLICATIONS

Gentlemen:

Attached is an announcement on the introduction of our new asbestos-free fireproofing material, MONOKOTE 5. Zonolite's MONOKOTE 5 is a definite improvement over existing materials and places W. R. Grace & Co. well ahead of all other manufacturers of fireproofing materials in the quality and assured performance of a non-asbestos containing plaster fireproofing material.

Because MONOKOTE 5 is so clearly superior to other direct-applied fireproofing materials, including MONOKOTE 4, this is the product needed for the future. It is, therefore, our plan to phase out MONOKOTE 4 and replace it with MONOKOTE 5.

The cost of MONOKOTE 5 is about 10% higher than MONOKOTE 4, because of the use of certain ingredients which, although costly, have been proven to be essential and the key to the outstanding performance of the new material.

W. R. Grace & Co.
Construction Materials Division
P.O. Box 1000
Portland, Oregon 97208

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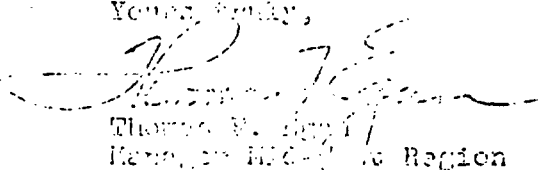
ZONOLITE MONOKOTE APPLICATORS
Page 2

Effective August 1, 1973, MONOKOTE 4 will be cancelled and replaced by MONOKOTE 5. The price of MONOKOTE 5 will be \$2.90 per bag FOB our plants. All jobs which have been bid prior to November 1, 1972, will be price protected at the price in effect at that time of bidding. Jobs bid after November 1, 1972, should be bid with MONOKOTE 5 at \$2.90 per bag if material will be required after August 1, 1973.

With the introduction of MONOKOTE 5, Zonolite has made another advance in fireproofing. We are now focusing our development efforts on improved application equipment and methods for MONOKOTE. Our commitment is to remain in a position of leadership in every possible way in the fireproofing business.

We look forward to maintaining and indeed improving our association with your firm, and always anxious to provide service as well as an outstanding product.

Yours truly,


Thomas W. Smith
Manager, Midwest Region

TFE:dj

7092299

MONOKOTE[®]
THE IMPROVED ASBESTOS-FREE PLASTER-TYPE
FIREPROOFING MATERIAL

October, 1972

Over the past few years, massive changes have taken place in direct-applied fireproofing:

- (1) The industry has become much more concerned with the quality of fireproofing. Architects, code officials, public agencies, and insurance underwriters have all become conscious of the importance of using products that provide assured protection to structures.
- (2) There have been a large number of new designs for floor and structural systems. Many of these new designs require fireproofing performance more demanding than in the past.
- (3) With the new ASTM E-119 criteria, new standards for fireproofing have been established that provide for increased fire protection.
- (4) With the recent concern about asbestos as a potential health hazard, legislation in certain areas has prohibited the use of asbestos as an ingredient in many products, including fireproofing materials.

MONOKOTE is a gypsum-vermiculite mix, applied as a plaster mortar. Therefore, airborne particles of any kind are of no real concern, unlike, for example, the emissions generated by the spraying of dry-type fibrous fireproofing materials.

However, when certain cities became concerned with airborne asbestos particles, they unfortunately did not differentiate between MONOKOTE and other fireproofing products. The result was a total ban on all materials which contained asbestos, regardless of the air contamination problem that any particular product might pose. Thus, MONOKOTE 3 was banned in certain cities, along with a host of other products. This necessitated the development of an asbestos-free material, which is marketed as MONOKOTE 4.

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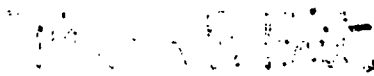
October, 1972

Our research work continued, however. We recognized that simply developing a material which contained no asbestos was not enough. With the industry's increasing demand for improved fire protection and with the design of new and more critical construction systems, a material exceeding even the outstanding performance of MONOKOTE 3 and MONOKOTE 4 was needed.

The result of three years of extensive research in the new asbestos-free Zonolite MONOKOTE 5. MONOKOTE 5 is a material which meets standards and requirements for fireproofing throughout the country. Fire tests at Underwriters' Laboratories have proven that MONOKOTE 5 will provide fire protection for virtually all of the new critical construction designs in use today, and as best we can forecast, the designs coming in the future.

In addition to the Underwriters' Laboratories tests, we have conducted numerous field tests with MONOKOTE 5 and find this new material has even better job site application performance than does MONOKOTE 4.

Therefore, Zonolite MONOKOTE 5 makes it possible for W. R. Grace & Co. to remain a leader in supplying the construction industry with a fireproofing product that provides owners to gain assured fire protection under all conditions and in all designs.


Thomas P. Felt - Manager
Fire Protection Products

TPF/jaj

25052041

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

TO: Mr. James F. O'Connell

November 2, 1970

APR 1 1964

St. Louis, Mo., June 10, 1906.

CHUNG, CHIA

Abstract in a copy of a date sheet on "Prostate Surgery on the Prostate" is attached in the envelope of the St. Louis. The article is dated in the October 12 issue of "Prostate Surgery".

This product may vary for 2000 units so should be limited in use. For information I have obtained it is also quite expensive. The material is very hard and can withstand a great deal of abuse.

Please request to re any information you get on this product. The St. Louis district should be on the look out for any local developments on this.

Will you please pass this information along to your circle.

1. Very highly valued,

[illegible]

200:44

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U.S. Patent 2,811,111

Interior/Exterior

PYROCRETE™

U.S. Listed

Approved Fireproofing by Underwriters

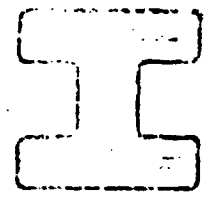
7092302

Low-Cost! Dust-Free!

Approved protection for Structural Steel

Compare these advantages:

- Rated to meet fireproofing requirements up to 4 hours.
- Lowest cost, hard, durable fireproofing material available.
- Pre-measured packaged mix for dependable quality.
- Anti-freeze action permits low-temperature applications.
- No post-application air pollution.
- Light-reflecting bright-white finish.
- Odorless... moisture repellent... termites and vermin resistant.
- Sprays on like paint... needs no forms or reinforcing mesh.
- Overnight curing speeds construction.
- Triple-acting... provides thermal, acoustical, electrical insulation.

COLUMN	DESCRIPTION	HRS.
	PYROCRETE #1 Applied Directly to Structural Steel Columns	
	1" PYROCRETE #1...	1½
	2 5/16" PYROCRETE #1	4*
	Recommended Thicknesses 1 Hour protection 3/4" 2 Hour protection 1-1/8" 3 Hour protection 1-5/8" 4 Hour protection 1-7/8"	

*Actual time to failure in U.L. Fire Test: 6 Hrs., 15 Min.

BEAM	DESCRIPTION	HRS.
	PYROCRETE #2 Applied Directly to Steel Surfaces	
	9/16" on Beams.....	3
	1/2" on Ceiling.....	3
	Approved by the N.Y.C. Bd. of Standards Cal. #282-68 SM	

◀ Ratings based on U.L. tests in accordance with ASTM E-119 for Code and Insurance requirements.

What is PYROCRETE ?

This catalytic proprietary formulation contains inorganic fibers, anti-freeze crystals, expanded vermiculite and hydraulic-setting binders in a pre-measured, two-component package. The materials are factory blended into a uniform dry mixture, easy to handle and with unlimited shelf life. Clean water is added at the jobsite just before use to make a stiff mortar-like mixture designed for spray application with recommended equipment by factory qualified applicators. PYROCRETE may also be trowelled or cast, depending on job conditions.

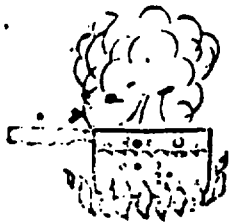
Don't dust or choke... contains no free asbestos!

PYROCRETE cures to a rockhard finish, preferred for use wherever steel will remain exposed, or may receive physical abuse. It may be substituted for concrete or gunite without loss of durability and with impressive savings. For application where soft, friable fireproofing cannot be tolerated.

PYROCRETE gives you lasting protection... all the protection you specify for the life of the structure! No call-backs, no arguments over responsibility, no weak link bare spots susceptible to fire attack.

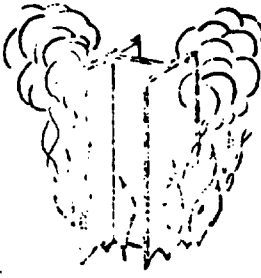
Years of proven use in the original formulation... now improved to provide easier, quicker, more economical spray application... even better resistance against direct physical abuse, variations of weather or climatic conditions and structural movement!

25052043



CONTAINING A MICROVOLUME OF WATER...

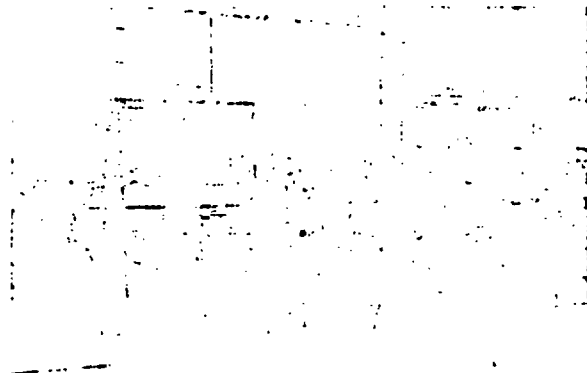
Here's how it works: Mixing water combines with PYROCRETE formulation to create non-stable compounds... rock hard and insoluble. During fire exposure the chemical reaction is reversed by thermal hydro-generation releasing a continuous flow of H₂O. Like water in a cooling vessel, the newly formed water vapor cools metal exposed to fire.



TYPICAL USES:

PYROCRETE provides durable, lightweight fire and corrosion insulation for steel columns, beams, tower skirts, process equipment supports, pipe rack vents, storage tanks and other exposed applications in petrochemical power plants, commercial structures and institutions. Lowest cost, fully acceptable fireproofing for industrial applications to meet insurance or code requirements. Write for test data and specification guidance.

7092303



Carboline Tech Service... available at your office or on the jobsite. Carboline is famous for technical know-how... with unequalled lab facilities, a 65-man field force, and the most experienced fire protection experts in the specialty coatings industry to provide true fire protection guidance from design to job completion.

CHARACTERISTICS OF PYROCRETE FORMULATIONS

DENSITY:	55 pounds per cubic foot
WATER VAPOR PERMEABILITY:	10×10^{-10} cm/sec
MOISTURE ABSORPTION:	10% at 100% humidity
COEFFICIENT OF EXPANSION:	PYROCRETE FORMULATIONS 3.0 x 10 ⁻⁵ in/in/°F
LINER SHRINKAGE:	Less than 1% or 1%
SETTING TIME:	6 to 8 hours (24 hours for full strength)
HARDNESS:	Shore D 80
OXIDATION POTENTIAL:	2.0V
INDENTATION STRENGTH:	10,000 psi 100,000 psi (at 100°F)
COMPRESSIVE STRENGTH:	10,000 psi
THERMAL CONDUCTIVITY:	0.05 BTU/ft-hr-°F

ADDITIONAL SPECIFICATIONS

SCOPE

This section shall include all materials, equipment and labor necessary for the application of PYROCRETE Fireproofing as specified herein complete, in accordance with this section of the specifications and applicable drawings, and subject to the general conditions of the contract.

CONTRACTORS QUALIFICATIONS

The applicator shall be qualified by the Carboline Company, 328 Hanley Industrial Court, St. Louis, Mo., 63144, to provide an authorized certification of this installation. Proof of qualification shall be submitted with the bid.

MATERIALS

- Primer (if required) shall be PYROPRIME #772 or equal.
- Fireproofing shall be PYROCRETE #1 for protection of columns, PYROCRETE #2 for protection of beams and decks.
- Mixing water shall be clean, fresh, potable water free of minerals, oils and organic substances.
- Topcoat/sealer (if required) shall be PYROCOTE #787 or equal.

All materials listed shall be products of the Carboline Company, 328 Hanley Industrial Court, St. Louis, Mo., 63144.

DELIVERY & STORAGE

- PYROCRETE Fireproofing shall be delivered in the original packages bearing proper product identification.
- PYROCRETE Fireproofing shall be kept dry until ready for use. It shall be kept off the ground, under cover and away from dampness.

MIXING

PYROCRETE Fireproofing shall be machine mixed and the mixer shall be clean and free of previously used materials. Mixing time shall not be less than 5 minutes, or more than 15 minutes. PYROCRETE shall be mixed in strict accordance with the manufacturer's printed mixing instructions. Temperature of water for mixing shall be above 40°F.

APPLICATION

PYROCRETE Fireproofing shall be applied at the thickness required to provide the fire ratings indicated on the drawings or in the fireproofing schedule, in accordance with the approved U.L. listed design, and installed as per the manufacturer's printed instructions. Surfaces shall be free of grease and oil and cleaned free of flaking paint, dust, rust or dirt. All installations in exterior locations or in corrosive atmospheres, and all large flat surfaces on the interior or exterior of structures, shall receive a coat of the manufacturer's recommended primer at least 24 hours prior to fireproofing application. Freshly applied PYROCRETE shall be kept damp for at least six hours after application to ensure proper curing. In case of corrosive environments, the manufacturer's recommended topcoat shall be applied in accordance with the manufacturer's instructions.

TEMPERATURE

PYROCRETE Fireproofing shall not be applied in temperatures below 20°F.

FIREPROOFING PRODUCTS DIVISION



CARBOLINE COMPANY
328 HANLEY INDUSTRIAL COURT
ST. LOUIS, MO. 63144

25052044

ZONOLITE DIVISION

7092304

TO: ARCHITECTURAL MAILING LIST "A"

November 9, 1972

FROM: R. O. deBastian

CC: T. F. Egan

SUBJECT: 26 GAGE SLOTTED METAL

Gentlemen:

I have been told by Bob Frohlich that Wheeling has accepted an order from one of our applicators in the east for 60,000 sq. ft. of 26 Gage Slotted Metal.

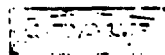
The order was accepted with a December 1 delivery requirement. This would indicate that Wheeling is ahead of schedule on this product. If you have any jobs coming up needing 26 gage, you should make an effort to get your applicator to order slotted metal.

If your local Wheeling office is not aware of this make sure they contact their home office.



Bob deBastian

ROD:cf



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