



CONSTRUCTION PRODUCTS DIVISION



To: R. E. Schneider
J. H. Schachter

Date: March 3, 1971

From: D. G. Powell

Subject: MONO-KOTE(R)
Reinforcement Fiber

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H. A. B.

Can we make or buy chopped rock wool fibers dispersed in gypsum and/or vermiculite?

Our MONO-KOTE effort to date indicates that we must have a reinforcement in the formula that survives too high temperatures and can be added at a modest cost, ideally, on a substitution basis no costlier than the asbestos in MONO-KOTE 3. Our thinking is that glass fibers could not be used above 1 or 2% addition rates because of approximate 34¢/lb. costs. Even if we go to the worst obtainable qualities (large diameter) glass fibers, the cost could never be expected to drop below, say, about 22¢/lb.

We would like to be able to approach addition rates of 12%, and the 4¢/lb. price of rock wool seems to be the only answer. Our problem is that dispersing of rock wool fibers in a dry mix is exceedingly difficult because of the tendency of the wool to knot up and cause uneven dispersing. U. S. Gypsum has had a need for dispersed rock wool for years, and has been unsuccessful in developing a process.

John Kraus at WRC has disclosed and demonstrated a method of chopping the wool and dispersing with gypsum which gives us reason to think we might be able to scale it up and also reason to feel there is potential for a valuable patent. The Kraus approach is an attrition process which implies batch processing. We are going to chop and disperse about twelve pounds of rock wool and use it in spraying a test deck. The test results will be available in approximately sixty days.

We are alerting you at this time because of your own lead times and because of the urgency in responding to market demand for a 3-hour deck (a blend of flute and flat). The stakes are big. As Tom Egan indicates, we may be able to add on several million dollars of sales in the near future with a 3-hour product. Major market areas will at any moment be outlawing spraying with asbestos which, of course, excludes our MONO-KOTE 3.



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Our MONO-KOTE 4 asbestos-free product only partially fills the gap because it does not have enough ratings. Tom has set a goal for us to come up with a 3-hour product within three to four months.

We are having a research meeting at U. S. Gypsum this Friday, wherein we hope to learn more about rock wool as well as portland cement special gypsums, etc., as fireproofing components. We will keep you advised of all developments.

David G. Powell

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