

FIBERITE CORPORATION



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WINONA, MINNESOTA 55987

PHONE 507/454-3811

April 23, 1976

Mr. Kuczkowski
Cutler Hammer Inc.
4201 North 27th Street
Milwaukee, WI 53216

Dear Mr. Kuczkowski:

Thank you for your letter of March 31st in reference to various Fiberite molding materials which we have been supplying Cutler Hammer. We share your concern with the necessity of complying with OSHA standards, particularly in reference to asbestos containing materials. We have not had any further information relating to whether or not this proposed change in fiber concentration will or will not become law.

We share your concern with the problems these OSHA standards are and will present to industry and the specific impact on our industry regarding asbestos molding compounds.

In reply to your specific questions, we trust that the following information will assist you. The Fiberite reference compounds used by Cutler Hammer are:

Group A -- FM-17610-F15, FM-6101-F15

Group B -- FM-8543, FM-8544, FM-8574X21667A, M-6204-10490

Of these compounds, Group A do contain asbestos fiber reinforcement. Group B do not. In Group A the reinforcement is a twisted yarn, the amount of loose asbestos is negligible. (Our production facility does comply with the current OSHA standard.) These compounds contain asbestos yarn in the range of 30-50% by weight.

After your question regarding the primary function of asbestos filler in our compounds, a simple direct definition is difficult. However with the properties listed, asbestos contributes some synergistic effects which make the compounds commercially desirable. Specifically, the two compounds in question exhibit superior impact strength, dimensional stability, elevated temperature resistance, coupled with other properties which best satisfy application requirements such as those required for Cutler Hammer

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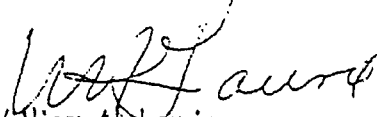
devices. In other words, the original incorporation of asbestos in these compounds was dictated by the need to satisfy application requirements which could not be readily met with other available filler materials.

Consequently, the elimination of asbestos in these compounds will reduce or downgrade some of the compound properties. In the process of eliminating asbestos, our mission would require that performance equivalence be obtained. Toward this goal there could arise situations where some compromise might be necessitated by Cutler Hammer in regard to these applications. Thus a cooperative evaluation program ~~between Fiberite and Cutler Hammer would be required to develop non-asbestos~~ formulations equivalent to the asbestos compounds in question. As to what changes you might expect in specific properties of a substitute non-asbestos formulation, the definitions would be highly speculative at this point. For example, we have already developed or are developing formulations which are non-asbestos and whose properties exceed the properties of FM-6101 or FM-17610, but are more costly than these compounds. New compounds developed by Fiberite based on DuPont polyimide fiber PRD49 has performance characteristics quite similar to asbestos but at a cost 7 to 10 times more. Similarly, compounds such as FM-3070 in our opinion is an immediate direct replacement for the asbestos materials and we recommend that Cutler Hammer maintain this compound of immediate replacement for the asbestos compounds. Likewise, we have developed the compounds like E-260H which has superior performance characteristics but is higher priced. Thus Cutler Hammer's base with the compromising decision of maximum device performance versus reduced device performance at a reduced cost.

Glass fiber reinforced polyester materials are in this latter category (our S-660) a compromise of requirements made to obtain either cost or key property advantage such as arc track resistance at the expense of wear resistance or some other characteristic. It is evident that Fiberite shares your concern regarding asbestos problems. We are continually screening the filler market and developing new compounds. We would be most happy to consider a cooperative program to develop alternate materials to the asbestos containing materials listed above. We hope this information is helpful.

Very truly yours,

FIBERITE CORPORATION


William A. Laurie
Vice President
Director of Research

WAL:kag
cc: Ted Pilat

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