



Fire Protection Products



November 3, 1995

TO WHOM IT MAY CONCERN

Re: Aging of Intumescent Products

To prevent misunderstanding or confusion regarding the long-term performance of the 3M FS-195+ Wrap/Strip or CS-195+ Composite Sheet, we make the following statement:

During the development process of its intumescent products, 3M established design and performance criteria to address the aging properties of these materials. Our FS-195+ and CS-195+ products have successfully passed the test procedures necessary to qualify for UL Component Recognition Listing. Component Recognition subjects the products to a series of aging standards to determine the effect of various environmental conditions on the intumescent properties, including such conditions as high temperature aging (95°C), moist air, CO₂-SO₂, temperature cycling, high humidity, wet-freeze-dry and weatherometer exposure.

In addition, 3M successfully fire tested penetrations using worse case aged products versus "as produced" products in full-scale UL wall tests.

Through its International organization, 3M has documented Arrhenius Plot/data from CEI, IEC 216-1, "Guide for the Determination of Thermal Endurance Properties of Electrical Materials" to show the performance life of FS-195+ and CS-195+ to be in excess of 100 years to the minimum designed expansion.

Please call 3M technical service (800) 458-4452 if you have any questions.

Regards,

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