

Dr. King

SPRAYED MINERAL FIBER MANUFACTURERS ASSOCIATION, INC.

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February 7, 1968

Mr. William Tocha
General Services Administration
Public Building Service
Specifications Branch - Room 3033
19th and F Street, N.W.
Washington, D. C. 20405

PLAINTIFF'S
EXHIBIT

USM-46

Reference: GSA Interim Guide Specification 224-3A

Mr. T. Reilly
Standardization and Technical Services Division
U. S. Naval Construction Battalion Center
Davisville, Rhode Island 02854

Reference: Federal Specification SS-S-111

Subject: Air Erosion Test Method

Gentlemen:

The Sprayed Mineral Fiber Manufacturers Association has undertaken an extensive test program to evaluate the test method for air erosion or dusting of sprayed fiber as described in GSA Interim Guide Specification on Sprayed Fire Protection, 224-3A, April 1966, paragraph -05 Type II. This work was done by the Kodaras Acoustical Laboratories, a recognized authority in the field of air-borne acoustics and vibration.

The study indicated difficulty with the test method and its limits as follows:

1. When an impinging air velocity of 800 feet per minute is produced parallel to the specimen, there is no way to reduce the issuing velocity with any degree of accuracy down to 270 feet per minute. Therefore, the Association adopted a test method using a constant velocity of 800 feet per minute over the entire face of the specimen.

2. It was found that certain filter cloths are sufficiently hygroscopic to introduce a serious error in the final results. It was also found necessary to define the physical characteristics of both the black filter cloth and the filter used at the blower end.

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Mr. Tocha, GSA
Mr. Reilly, NCBC

-2-

February 7, 1968

3. Sufficient damage occurs to the test specimen during transportation and installation to necessitate a six hour purge prior to the 24 hour test period.

4. By conducting the test at the constant velocity of 800 feet per minute on properly prepared specimens, an upper limit of 0.025 grams per square foot of air erosion or dusting results.

We therefore request GSA to revise this test method and limits, and suggest the following:

Air erosion - not to exceed 0.025 grams per square foot when tested as specified. Test shall be made in a suitable tight metal duct with a filter at the blower end having an efficiency of 95% in filtering particles of 5 micron size or larger. The dust collecting black cloth shall be made of nylon fabric having a thread comb per inch of 102 for warp and 82.3 for filling, and calculated denier of 30 for both warp and filling. The cloth shall be dried to constant weight at 120°F. before each weighing.

Test specimen of the specified minimum density for the type of material proposed for use shall be placed in opening in side of duct so that face of sample and inside face of duct are in the same plane. Air velocity shall be parallel to the face of the sample and maintained at a minimum of 800 feet per minute as determined by a standard vane type anemometer. The specimen shall be purged for six hours, after which it is tested for 24 hours. Gain in weight of the black filter cloth or air erosion for this test period shall not exceed 0.025 grams per square foot.

Sincerely yours,

SPRAYED MINERAL FIBER MFRS. ASSN, INC.

Frank M. Stumpf
Frank M. Stumpf
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FMS/ec

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