

fiber insulation products, and solicited comments for this purpose. The Commission specifically requested any data that demonstrate whether any of the following, currently available test procedures, or others, would produce accurate and reliable, long-term settled density results for mineral fiber insulation products in attic applications: the BCS test procedure in ASTM C 739–91 (which currently is required for dry-applied, loose-fill cellulose insulation products); the “Canadian drop box procedure,” which GSA previously proposed for loose-fill mineral fiber insulations under Federal Specification HH-I-1030B;⁵³ the British Standard Vibration Test; and the procedure developed in Scandinavia by Dr. Svennerstedt. *Id.*

Comments on Dry-applied, Loose-fill Mineral Fiber Insulations for Use in Site-Built Home Attics

NAIMA commented that field measurements of the thickness of loose-fill mineral fiber insulation in open-blown attic applications show little or no settling. For example, according to NAIMA, the Mineral Insulation Manufacturers Association (“MIMA”) concluded, with ORNL concurring, that tests demonstrated that settling of loose-fill mineral fiber in attics is a minor factor in the final installed R-value delivered to the customer when the thickness and amount of material required by the bag label is installed. For insulation installed at or above label density and thickness, the calculated final R-values of loose-fill mineral fiber products were always at or above the labeled R-value. NAIMA contended that, because these materials do not settle significantly, no predictive settling method has been validated for these products. NAIMA argued that identical tests should not be required for both cellulose and mineral fiber because such an approach would yield meaningless results from duplicate tests on distinctly different substances, and would not create an even playing field.⁵⁴

CIMA commented that, because there is no specific test for determining the settled densities of dry-applied loose-fill mineral fiber insulation, such materials may have labeled densities that are lower than actual settled densities, thereby depriving consumers of the amount of insulation they think they are purchasing. According to CIMA, recent independent third-party testing confirms that this is the case. CIMA recommended specific Rule language

that would require that all dry-applied loose-fill insulation be subjected to the ASTM C 739–97 test for settled density.⁵⁵

Discussion of Dry-applied, Loose-fill Mineral Fiber Insulations for Use in Site-Built Home Attics

The Commission recognizes that there is no consensus standard currently available to measure the settling of loose-fill mineral fiber insulations for use in site-built attics. In addition, on its face, ASTM C 739 applies to cellulosic fiber only. Thus, it would seem inappropriate for the Rule to require the application of that test procedure to loose-fill mineral fiber insulation. The Commission emphasizes that industry members must have a reasonable basis for their R-value claims that takes into account the effects of settling. In addition, the Commission proposes to amend the Rule to eliminate the reference to the GSA procedure because, as discussed earlier, it is no longer applicable. The Commission seeks further comments on this issue, including whether it would be appropriate to apply the test procedure in ASTM C 739–97 to mineral fiber.

iii. Stabilized Cellulose in Site-Built Attics

In the ANPR, the Commission acknowledged that, due to the manner in which stabilized cellulose insulation is installed, the BCS test procedure may not be appropriate for determining its long-term, settled density. 64 FR at 48033–34. The Commission did not agree with NAIMA, however, that the procedure for determining density in ASTM C 1149 is the appropriate measure of the long-term, settled density of stabilized cellulose insulations installed in attic applications. The Commission explained that ASTM C 1149 is designed for insulations that are sprayed onto walls, and able to support themselves as applied. Such insulations are most often applied to metal walls in commercial buildings, where they are left exposed. The Commission stated that when ASTM, or others, adopt a specific method for determining the long-term density of stabilized cellulose insulation for attic applications the Commission will consider whether to require its use. The Commission reminded manufacturers that, in the meantime, under section 5 of the FTC Act, they must have a reasonable basis for the density at which they conduct the R-value tests required by the Rule

and for the R-value claims they make to consumers. 64 FR 48033.

Comments on Stabilized Cellulose Insulations for Use in Site-Built Home Attics

The Commission received one comment, from NAIMA, on the issue of stabilized cellulose insulations. NAIMA stated that there is little information on long-term thermal effectiveness and overall performance of wet-spray cellulose insulations, that no material specification exists to cover this product, and that there is no standard protocol for determining appropriate test density for labeling purposes. NAIMA reported that ongoing work on a proposed specification has relied on a drop box method under fixed laboratory conditions, but, in NAIMA’s view, data has not been presented suggesting at what level of settlement a product is considered to be stabilized.

NAIMA further contended that the tests do not necessarily represent the material in actual field installations. NAIMA indicated that the product’s settling and shrinkage varies with temperature and humidity and that data supports significant shrinkage at elevated temperatures and increased moisture levels. It is very difficult, in NAIMA’s opinion, to maintain consistent density due to variations in the amount of water used when the product is installed, noting that many contractors say that they have no clear guidelines on drying of wet-spray cellulose. This is particularly significant in new construction where the wet spray insulation may not dry “before the building is completed and the attic is closed up.” NAIMA also stated that it was not aware of any testing conducted by the cellulose industry to provide consumers and installers with useful information and guidance on drying times. It advised the Commission, in light of what it characterized as “this serious variable threatening to degrade the settled density of the cellulose insulation,” to require each manufacturer to provide consumers and customers with reliable guidelines to ensure that the insulation has dried before construction is completed. NAIMA contended that this measure is particularly crucial because there is no approved test method for determining settled density. Pending the development of an accepted standard protocol (which it maintained the Commission should then require), NAIMA urged the Commission to require producers of stabilized cellulose to disclose to consumers and installers settlement and shrinkage data as a function of moisture application levels

⁵³ See 44 FR at 50228, 50239 n.239.

⁵⁴ NAIMA (9), pp. 1–14.

⁵⁵ CIMA (4), p. 3.