

Tenneco, and NAIMA agreed with the Commission's preliminary position stated in the ANPR.¹³ NAIMA and Tenneco maintained that commercial buyers generally possess greater knowledge about products used in the regular course of business and are less vulnerable to deceit and confusion. Tenneco explained that commercial professionals must possess working knowledge of thermal properties of entire building systems, well beyond simple R-values, and that they often rely on independent large-scale performance testing or calculations at specific conditions. Tenneco contended that it would be difficult to craft Rule provisions that would adequately address these multiple performance scenarios. PIMA and NAIMA maintained that there is no evidence that manufacturers have engaged in improper marketing claims to commercial or industrial audiences. Finally, NAIMA and its members provide educational materials to commercial and industrial customers that, in their opinion, offer technical detail and comprehensive assessments on topics exclusively pertinent to commercial and industrial interests. NAIMA contended that these materials exceed the information the Rule requires be given to consumers.

Seven comments supported extension of the Rule to cover commercial applications.¹⁴ Celotex stated that, while there is no evidence of misrepresentation, design professionals rely heavily on manufacturers for information and training, and an extension of the Rule's coverage would standardize and simplify the specification process for architects.¹⁵ Information FPSA had gathered suggests a lack of knowledge among architects and specifiers about the proper methods for comparing insulation types.¹⁶ Both Elastizell and Cellucrete, which offered similar comments, stated that competitors had engaged in deceptive advertising of the thermal performance of cellular concrete products.¹⁷

Discussion

As discussed in the ANPR, the Commission recognizes that applying the Rule to thermal insulation products used in commercial buildings might provide information to purchasers that

could improve the energy efficiency of buildings, and otherwise prove useful. In addition, commenters have identified at least one example where sellers of commercial insulations may be engaged in unfair or deceptive practices. There is no indication from the comments, however, that such practices are widespread. Furthermore, as discussed in the ANPR, thermal insulation purchasing decisions for commercial building applications are made by architects or engineers in many instances. These professionals may require R-value and other performance information based on circumstances different from the uniform approach the Commission has determined necessary to provide accurate and understandable information to individual consumers. See discussion at 64 FR at 48027.

As several comments suggest, these architects and engineers may not always have the information or time necessary to consider these matters fully. According to some comments, an extension of the Rule would standardize and simplify the specification process for these professionals. At the same time, however, the Commission recognizes that extending the Rule would impose additional compliance burdens on industry members. Because professionals in the commercial field have greater knowledge compared to residential customers and the lack of evidence indicating unfair and deceptive practices are prevalent, the Commission finds that the potential benefits to commercial users would not justify the additional burdens that an extension of the Rule would impose. Accordingly, the Commission is not proposing to extend the Rule to cover sales to the commercial market. The Commission will continue to address concerns in this area as they arise pursuant to its general authority under section five of the FTC Act.

B. Disclosing In-Use Thermal Performance Values

1. Performance of Insulations in Actual Use

Background

In the ANPR, the Commission discussed earlier comments relating to seasonal factors and other variables that can affect the R-value of insulation products in actual use. 64 FR at 48027. Specifically, previous commenters identified factors that affect performance in attics during winter conditions and factors that affect performance under winter versus summer conditions and stated that the Rule does not sufficiently account for these factors. Some of the comments

addressing this issue pointed to ORNL research that demonstrates a reduction in R-value of very low-density fibrous insulations installed in open or vented attics when the temperature difference between the heated area of a home and its cold attic becomes particularly great. This can occur during the most severe winter conditions in some portions of the United States.

An ORNL representative explained that ASTM was developing a method of determining the thermal performance of attic insulations during winter conditions, ASTM C 1373,¹⁸ and suggested that the Commission incorporate it into the Rule when it is adopted. As discussed in the ANPR, one commenter maintained that several factors, in addition to R-values, that are determined under steady-state conditions have a major effect on product performance, such as air permeability and temperature differential. The commenter contended that a measurement known as the Rayleigh number provides a more complete indication of the effect that the combination of R-value, air permeability, and temperature differential have on insulation materials under specific conditions, and that it represents a more accurate measure of insulating capabilities than R-value alone. This commenter suggested that the Commission require the Rayleigh number on packages and promotional materials of insulation products.¹⁹

The Commission requested comment on alternatives to steady-state R-values, and specifically asked that commenters address six areas: (1) specific alternative measurements that are available to describe the *in situ* use of home insulation products better than the steady-state R-values required by the Rule; (2) which *in situ* conditions should be accounted for; (3) whether different types or forms of home insulation products perform differently under specific *in situ* conditions, and how significant this different performance is under specific circumstances (e.g., how much would the difference in performance in actual

¹⁸ Standard Practice for Determination of Thermal Resistance of Attic Insulation Systems Under Simulated Winter Conditions ("ASTM C 1373").

¹⁹ The Rayleigh number is a measure of the tendency of air to move. In the context of very low density thermal insulations installed on the floor of an open attic during very cold periods, the Rayleigh number is a ratio between the buoyant force of warmer air (the air at the bottom of the insulation near the heated interior of the house) attempting to move upward and the resistance of the insulation fibers against that upward air movement. The higher the number, the stronger the buoyant force, and the greater the reduction of the insulation's steady-state R-value. 64 FR 48028, n. 22 (1999).

¹³ PIMA (3), pp. 2, 9; Tenneco (16), p. 1; NAIMA (9), pp. 7–9.

¹⁴ EPSMA (6), p. 2; Celotex (7), pp. 1–2; FPSA (8), p. 2; Elastizell (10), pp. 1–4, *passim*; AFM (13), pp. 1–2; Cellucrete (15), pp. 2–4; SPFA (18), p. 1.

¹⁵ Celotex (7), pp. 1–2.

¹⁶ FPSA (8), p. 2.

¹⁷ Elastizell (10), pp. 1–4, *passim*; Cellucrete (15), pp. 2–4.