FEDERAL TRADE COMMISSION

16 CFR Part 460

LABELING AND ADVERTISING OF HOME INSULATION: TRADE REGULATION RULE

AGENCY: Federal Trade Commission.

ACTION: Final Rule.

SUMMARY: The Federal Trade Commission (“Commission”) amends its Trade Regulation Rule Concerning the Labeling and Advertising of Home Insulation (“R-value Rule” or “Rule”) to clarify, streamline, and improve existing requirements. Specifically, the amendments clarify the Rule’s coverage, improve Fact Sheet disclosures, require certain test methods to substantiate R-value claims for non-insulation products, update the test procedures incorporated into the Rule, and exempt certain disclosures for limited format advertising.

DATES: The amendments will become effective on [INSERT DATE ONE YEAR AFTER PUBLICATION IN THE FEDERAL REGISTER]. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of [INSERT DATE].

ADDRESSES: Copies of this document are available on the Commission’s website, www.ftc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

The Commission promulgated the R-value Rule in 1979 to address the failure of the home insulation marketplace to provide essential pre-purchase information to consumers, primarily an insulation product’s “R-value.” An insulation product’s “R-value” represents the product’s ability to restrict heat flow and, therefore, reduce energy costs. The higher the R-value, the better the product’s insulating ability. R-value ratings vary among types and forms of home insulations and even among products of the same type and form.

For insulation marketed for use in residential structures, the Rule requires R-value disclosures, directs manufacturers to substantiate the claims made in these disclosures, and prohibits certain claims unless they are true and non-misleading. Specifically, the Rule requires insulation sellers to disclose the insulation product’s R-value and related information based on uniform, industry-adopted test procedures. This information enables consumers to evaluate the performance and cost-effectiveness of competing products.

A. Products Covered

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The R-value Rule covers all “home insulation products.” Under the Rule, the term “insulation” includes any product “mainly used to slow down heat flow” from, for example, a heated interior through exterior walls to the outside. The Rule covers most types of insulation marketed for use in residential structures. It does not cover insulation marketed solely for use in commercial (including industrial) buildings.

Home insulation falls into two basic categories: “mass” and “reflective.” Mass insulations reduce heat transfer by conduction (through the insulation’s mass), convection (air movement within, and through, the air spaces inside the insulation), and radiation. Reflective insulations (primarily aluminum foils) reduce heat transfer by radiation, when the insulation is installed facing an airspace. Within these basic categories, home insulation is made from various materials (e.g., fiberglass, cellulose, polyurethane, aluminum foil) and comes in various forms (e.g., batt, dry-applied loose-fill, spray-applied, board stock, multi-sheet reflective).

B. Covered Parties

The Rule applies to home insulation manufacturers, professional installers, retailers who sell insulation for do-it-yourself installation, and new home sellers, including sellers of manufactured housing (“covered entities”). It also applies to laboratories that conduct R-value tests for those who base their R-value claims on these test results.

C. The Rule’s Basis

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3 See 16 CFR 460.2.

4 The Rule does not cover pipe insulation or any type of duct insulation except for duct wrap. See 44 FR at 50238, n. 170 (the Commission explained that pipe insulation is used primarily to reduce condensation). In addition, while most of the Rule’s provisions do not apply to non-insulation products with insulating characteristics, such as storm windows or storm doors, the amendments announced in this Notice add substantiation requirements for R-value claims made for such products.
The Commission first issued the R-value Rule in response to a variety of unfair or deceptive acts or practices in the insulation industry. Specifically, the Commission found that many sellers: (1) failed to disclose R-values, impeding informed purchasing decisions and misleading consumers who based their purchases on price or thickness alone; (2) exaggerated R-value disclosures and often failed to account for material factors (e.g., aging, settling) that reduce thermal performance; (3) failed to inform consumers about an R-value’s meaning and importance; (4) exaggerated fuel bill savings and failed to disclose that savings vary depending on consumers’ particular circumstances; or (5) falsely claimed that consumers’ insulation purchases would qualify for tax credits, or that products had been “certified” or “favored” by federal agencies.5

D. The Rule’s Requirements

The Rule requires covered entities to disclose R-value and related information (e.g., thickness, coverage area per package) on package labels and manufacturers’ fact sheets. Covered entities must derive these disclosures from tests conducted according to one of four specified ASTM International (“ASTM”) test procedures that measure thermal performance under “steady-state” (i.e., static) conditions.6 Industry members must conduct tests for mass insulation products on the insulation material alone (excluding any airspace) at a mean temperature of 75°C F. The Rule’s R-value tests account for factors that can affect insulation’s thermal performance. For example, tests for polyurethane, polyisocyanurate, and extruded

5 44 FR at 50222-24.
6 The Rule (Section 450.5) incorporates by reference ASTM test procedures, which ASTM reviews and revises periodically. For mass insulations, the required tests are ASTM C177, C518, C1363, or C1114. The Rule requires testing for reflective insulation products according to ASTM C1363, which generates R-values for insulation systems (such as those that include one or more air spaces). Industry members must test the R-value of a single-sheet reflective insulation product under ASTM E408 or C1371.
polystyrene insulation account for aging, and tests for loose-fill insulation products reflect the effect of settling.\(^7\)

The Rule also requires specific disclosures on manufacturer product labels and fact sheets, installer receipts, and new home seller contracts. For example, insulation labels must display the product’s R-value and the statement “R means resistance to heat flow. The higher the R-value, the greater the insulating power.”\(^8\) The Rule also requires that certain affirmative disclosures appear in advertising and other promotional materials (including those on the Internet) containing an R-value, price, thickness, or energy-saving claim, or comparing one type of insulation to another. For example, if an advertisement contains an R-value, it must disclose the type of insulation being sold and the thickness needed to obtain that R-value, as well as the statement: “The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on R-values.” In addition, if an advertisement contains an energy saving claim, it must disclose: “Savings vary. Find out why in the seller’s fact sheet on R-values. Higher R-values mean greater insulating power.”

The Rule also requires manufacturers and other sellers to have a “reasonable basis” for any energy-saving claims they make on labels or in advertising.\(^9\) Although the Rule does not specify how they must substantiate such claims, the Commission explained when issuing the Rule that scientifically reliable measurements of fuel use in actual houses, or reliable computer models or methods of heat flow calculations, would meet the reasonable basis standard.\(^10\) Sellers other than manufacturers can rely on the manufacturer’s claims unless they know, or should know, that the manufacturer lacks a reasonable basis for its claims.

\(^7\) 44 FR at 50219-20, 50227-28.
\(^8\) 16 CFR 460.12(c).
\(^9\) See 16 CFR 460.19.
\(^10\) 44 FR at 50233-34.
II. Regulatory Review

The Commission reviews its rules and guides periodically to ascertain their costs and benefits, regulatory and economic impact, and general effectiveness in protecting consumers and helping industry avoid deceptive claims. These reviews assist the Commission in identifying rules and guides warranting modification or rescission. As part of its last review in 2005, the Commission issued several amendments to update and improve the Rule. For example, the Commission added a temperature differential requirement for testing, updated tests for reflective insulation, and required new initial installed thickness disclosures for loose-fill insulation.\textsuperscript{11}

In 2016, the Commission initiated a new regulatory review through the publication of an Advance Notice of Proposed Rulemaking (ANPR).\textsuperscript{12} In that Notice, the Commission sought comments on, among other things, the economic impact of, and the continuing need for, the Rule; the Rule’s benefits to consumers; and the burdens it places on industry, including small businesses, subject to its requirements.

Following the ANPR, the Commission published a Notice of Proposed Rulemaking (NPRM) on January 22, 2018 (83 FR 2934). In that Notice, the Commission proposed to: 1) clarify that the Rule covers products marketed for residential applications, even if those products are originally developed for the commercial market; 2) require marketers to use the Rule’s testing requirements to substantiate any R-value claims for non-insulation products marketed in whole or in part to reduce residential energy use by slowing heat flow; 3) add information about air sealing and installation to fact sheets; 4) clarify that online retailers must provide labels and fact sheets; 5) eliminate reference to an obsolete aging specification; 6) revise provisions addressing the incorporation by reference of ASTM test procedures; 7) eliminate a provision that

\textsuperscript{11} 70 FR 31258 (May 31, 2005).
\textsuperscript{12} 81 FR 35661 (June 3, 2016).
automatically updates ASTM test procedures; and 8) exempt space-constrained advertising from certain affirmative disclosures.\textsuperscript{13} In response to the NPRM, the Commission received 13 comments.\textsuperscript{14} After considering the comments, the Commission now issues final amendments to the Rule, which, as discussed below, largely track the amendments proposed in the NPRM.

\section*{III. Issues Raised by Commenters}

\hspace{9pt} \textbf{A. Need for and Costs and Benefits of the Rule}

In the NPRM, the Commission determined to retain the Rule, given its benefits and minimal costs as reported by commenters. Summarizing comments received in response to the ANPR, the Commission explained that the Rule helps consumers and industry members by combating deceptive and unfair practices, creating a level playing field that promotes competition, fostering a marketplace in which industry can more easily self-regulate, furnishing guidelines to industry for product testing and evaluation, and promoting consumer confidence. The commenters also indicated the Rule does not impose significant, unwarranted costs on industry members or consumers.

In response to the NPRM, several commenters supported the Commission’s decision to retain the Rule and reiterated many of their earlier points.\textsuperscript{15} No commenters objected to the Rule’s retention. Accordingly, the Commission retains the Rule.

\textsuperscript{13} The amendments also make a non-substantive change to Section 460.2 (\textit{i.e.}, changing the term “slow down” to “slow”).

\textsuperscript{14} The comments are located at: \url{https://www.ftc.gov/policy/public-comments/2018/03/initiative-740}. Polysiocyanurate Insulation Manufacturers Association (PIMA) (#00009); AFM Corporation (#00010); North American Insulation Manufacturers Association (NAIMA) (#00011); Insulation Contractors Association of America (ICAA) (#00012); Reflective Insulation Manufacturers Association (RIMA) (#00013); American Chemistry Council (ACC) (#00014); Brick Industry Association (#00015); EPS Industry Alliance (EPS-IA) (#00016); Harrison (#00008); Anonymous (#00007); Aresty (#00006); Ji (#00003); and Extruded Polystyrene Foam Association (XPSA) (#00002).

\textsuperscript{15} See PIMA, NAIMA, Anonymous, and Ji.
B. Commercial Insulation Products Sold in the Residential Market

Background: The Rule does not cover insulation sold for use in commercial (including industrial) buildings. However, comments submitted in response to the ANPR stated that some products developed and marketed primarily for commercial or industrial structures are also marketed for residential applications. In the NPRM, the Commission proposed amending the Rule to clarify that such products fall within the Rule’s existing coverage of “home insulation.”

Comments: Several commenters supported the proposed amendment; none objected. NAIMA explained that the clarification effectively addresses disclosures for products developed initially or primarily for commercial or industrial applications but also marketed in the residential sector. The amendment, according to NAIMA, apprises industry members that commercial and industrial products marketed to homeowners must comply with the Rule.

Discussion: As discussed in the NPRM and the comments, some industry members operating in the residential market appear to be unaware that they must follow the R-value Rule for products marketed for residential applications even if originally developed and intended for the commercial or industrial market. Accordingly, the final amendments clarify that the Rule covers such products.

C. R-Value Claims for Non-Insulation Products

Background: Since its original promulgation, the Rule has applied only to products marketed primarily as insulation and thus has excluded non-insulation products with insulating characteristics, such as siding, coatings, caulking, weather stripping, garage doors, or draperies. In the NPRM, the Commission proposed expanding the Rule’s current testing requirements to R-

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17 See ACC, AFM, ICAA, NAIMA, PIMA, and XPSA.
value claims made for any non-insulation product marketed to reduce energy use by slowing heat flow in residential buildings.

Comments: Commenters supported (and none opposed) the Commission’s proposal. XPSA, for example, agreed that marketers must support claims for insulating performance qualities for these types of products. NAIMA observed a prevalence of questionable R-value claims for non-insulation products and argued the amendment would provide clear notice that marketers must substantiate R-value claims for such products. Specifically, NAIMA cited numerous questionable R-value (e.g., R-24) and insulation-related claims made for paints and ceramic coatings. None of the commenters stated that the Rule’s testing requirements in Section 460.5 would be inappropriate for substantiating such claims or would otherwise fail to cover R-value claims for these various products. Finally, the Brick Industry Association (BIA) explained that its technical documents contain R-value claims for brick wall assemblies derived from a modified version of ASTM C1363. Asserting that its modified approach is consistent with the intent behind ASTM C1363, BIA urged the Commission to approve its R-value disclosures.

In addition to discussing the proposed amendment, several commenters raised concerns about energy savings claims. NAIMA, for instance, asked the Commission to affirm marketers must substantiate any type of energy savings claim. NAIMA, along with ACC, also recommended the Commission reference the Policy Statement Regarding Advertising Substantiation and remind manufacturers about the need for competent and reliable scientific evidence to back their claims. Such Commission affirmation, in NAIMA’s view, would allow members to “more authoritatively” challenge deceptive competitor claims.

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18 NAIMA, XPSA, Brick Industry Association, ICAA, and ACC.
19 XPSA, ACC, and NAIMA.
20 See Substantiation Statement.
Discussion: Consistent with the proposal, the Commission’s final amendments direct sellers to use the Rule’s existing testing requirements to substantiate R-value claims for non-insulation products, with the exception of fenestration and fenestration attachments. The Commission has observed a prevalence of grossly exaggerated R-value claims for non-insulation products, such as coatings, paint, and housewrap sold primarily for reasons other than their ability to impede heat flow. Because the Rule has not covered these products, the Commission has challenged such practices as false and unsubstantiated under Section 5 of the FTC Act. Commenters confirmed that these questionable R-value claims for non-insulation products are common.

To address this problem, the new provision will furnish an effective means to reduce deceptive claims by providing clear guidance for marketers seeking to make truthful, substantiated claims, while establishing a more direct means to combat unsubstantiated R-value claims. The amended rule requires marketers to base any voluntary R-value claim made in advertising for a non-insulation product on the appropriate tests referenced in Section 460.5 of the Rule (i.e., the standard ASTM tests incorporated into the Rule and currently applicable to R-value disclosures for insulation). Accordingly, marketers acting in good faith will have clear notice of the test procedures they should use to substantiate their R-value claims. In addition, the amendment will give the FTC a more efficient and direct means to challenge R-value claims that

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21 As noted in the NPRM, the amendments exclude fenestration and fenestration attachments because these products are covered under the rating and certification activities of entities such as the National Fenestration Rating Council (NFRC) and DOE. See Energy Policy Act of 1992 (Section 121 of Pub. L. 102–486).
23 NAIMA; Robert Aresty.
are not adequately substantiated. The amendment does not impose any disclosure, labeling, or additional requirements for non-insulation products beyond the testing requirements.24

It is likely most marketers who choose to make R-value claims for various non-insulation products already rely on the appropriate ASTM testing standards. Accordingly, this amendment should pose little or no additional burden. At the same time, it will clarify that marketers must substantiate R-value claims and will provide a check on unscrupulous sellers who seek an unfair advantage by exaggerating product R-values based on faulty tests.

The final amendment does not contain a provision approving specific technical disclosures related to R-value claims made for brick wall assemblies. Without additional details about how such R-values are derived, the Commission cannot address the particular testing BIA described. Should marketers need guidance about testing for this or other products covered by the new provision, they can contact FTC staff.

In response to commenter concerns about energy savings claims, the Commission reaffirms that sellers must substantiate their energy savings claims with competent and reliable scientific evidence. Section 460.19 of the Rule requires manufacturers to have a reasonable basis for savings claims and specifies recordkeeping requirements for data that support such claims. In addition, the Commission has provided general guidance for making truthful and not misleading advertising claims through a variety of means, including the Deception Policy Statement and the Policy Statement Regarding Advertising Substantiation.25 Marketers may also

24 Specifically, as indicated in the amendment to the Rule’s Appendix, the requirements of Sections 460.6 through 460.21 do not apply to R-value claims for such products. Although the Rule’s recordkeeping requirements (460.9) do not apply to the amendment, marketers still must possess substantiation (e.g., test reports) for their claims, just as they must for any claim pursuant to the FTC Act.
25 See Deception Statement; and Substantiation Statement.
refer to past Commission cases involving deceptive energy savings claims for further guidance on these issues.26

D. Additional Fact Sheet Disclosures

Background: In the NPRM, the Commission proposed changing the Rule’s fact sheet disclosures to better alert consumers to factors that may affect their heating and cooling costs. The current fact sheets generally advise consumers that their fuel savings depend on a variety of considerations, including their geographic location, type of house, fuel use, and family size. Comments on the ANPR, however, suggested the fact sheets should also mention that proper insulation installation and home air sealing can affect fuel costs. Accordingly, the Commission proposed amending the fact sheets to specifically address these two factors and sought comments on how much time manufacturers would require to make such changes. The Commission also asked whether the Rule should require specific disclosures for R-19 batt insulation, as suggested by some commenters, when installed in typical wall cavities, where compression can reduce R-value.

Comments: Commenters supported including information about installation and home air sealing on fact sheets.27 ACC, for instance, indicated the two additional disclosures will help improve consumer understanding of building envelope performance. NAIMA added that the new information will assist consumers in choosing insulation.

Although commenters did not identify any significant regulatory burden associated with the changes, a few requested sufficient compliance time. ACC estimated its members could

26 See, e.g., In re Gorell Enterprises Inc., FTC File No. 112-3053 (May 16, 2012); In re Long Fence & Home LLLP, FTC File No. 112-3005 (Apr. 5, 2012); In re Serious Energy Inc., FTC File No. 112-3001 (May 16, 2012); In re THV Holdings LLC, FTC File No. 112-3057 (May 16, 2012); and In re Winchester Industries, FTC File No. 102-3171 (May 16, 2012).
27 NAIMA, ICAA, and ACC.
implement the proposed changes within 180 days. However, given that older fact sheets are likely to remain in circulation beyond that date, it asked the Commission to consider a “reasonable approach” to enforcement within the first year. NAIMA, on the other hand, recommended a two-year effective date to allow manufacturers to exhaust existing stock and revise fact sheets for a wide variety of products.

Although ACC did not oppose the proposed fact sheet change, it suggested additional mandatory disclosures related to air sealing. Specifically, it recommended that fact sheets include a link to Department of Energy (“DOE”) information about air sealing for homes and buildings. It also requested additional language in Section 460.17 requiring installers to tell customers insulation has been installed in accordance with the manufacturer’s instructions. Furthermore, ACC recommended additional disclosures consistent with its assertion in comments to the ANPR that an insulation’s air infiltration properties impact overall home efficiency. NAIMA, however, expressed its continued disagreement with ACC on the matter. In its view, insulation does not play a major role in blocking total air infiltration in a home, and resistance to air flow is accomplished largely by other measures required by building energy codes, such as gypsum board, sheathing, house wrap, and sealing of joints and holes.

Finally, NAIMA supported specific disclosures on fact sheets for R-19 batts because such insulation, which is usually 6⅜” thick, is frequently compressed into 5 ½” wall cavities, thus reducing R-value. NAIMA suggested requiring that fact sheets disclose the compressed insulation’s R-value rounded to the nearest whole number.

Discussion: The final amendments require fact sheets to include installation and air sealing information. As discussed in the NPRM and by the commenters, these changes will better alert consumers to factors that may affect their heating and cooling costs. The final
amendments also contain a new provision requiring fact sheets to disclose reductions in the R-value of R-19 batts when such insulation is compressed into typical wall cavities. This new disclosure will help alert building professionals and consumers to the lower R-value resulting from compression in the typical installation of this product. Finally, the Commission sets the effective date of these new disclosures (and all other final amendments) at one year, which gives manufacturers an entire selling season to make the required changes. The one-year compliance period should be sufficient for manufacturers to update their fact sheets posted online as well as those provided to retailers. Should manufacturers confront issues with existing fact sheet stock, they can contact FTC staff for guidance.

Although the final amendments include the general disclosures proposed in the NPRM, the Commission declines to require additional disclosures related to installation and air infiltration as suggested by ACC. Such disclosures do not appear necessary because the Rule already requires information on labels and fact sheets regarding the importance of proper installation in achieving the labeled R-value. In addition, the Commission declines to require disclosures about the air sealing qualities of insulation and associated impacts on overall energy performance. Commenters responding to the ANPR and NPRM disagreed about this issue. For example, while ACC argued the air sealing performance of insulation is important, NAIMA asserted that marketers should not claim a product’s ability to block air infiltration, and not its R-value, is paramount. Likewise, NAIMA objected to claims suggesting insulation that limits air infiltration performs better overall than other insulations.28 Furthermore, on several occasions

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28 In addition, a Fact Sheet titled “R-Value Introduction” issued by DOE’s Oak Ridge National Laboratory also raises questions about the importance of insulation’s ability to limit air movement. The Fact Sheet states: “The ability of insulation to limit air movement should not be confused with ‘air sealing.’ The insulation reduces air movement only within the space it occupies. It will not reduce air movement through other cracks between building parts. For
since the Rule’s initial promulgation in 1979, the Commission has acknowledged that R-value tests do not account for many factors, such as the design characteristics and geographic location of the building, the specific application in which the product is installed, outside and inside temperatures, air and moisture movement, installation technique, and others. At the same time, the Commission has also maintained that quantifying and providing uniform comparative ratings to reflect these various factors would significantly complicate the Rule’s disclosures and likely confuse consumers without providing commensurate benefits. Accordingly, consistent with the NPRM, the final Rule does not include disclosures addressing these issues. However, the Commission reiterates that under Section 460.19 of the Rule, insulation manufacturers must have a reasonable basis for any energy savings claims they make for their insulation products.

E. Online Disclosures

Background: In the NPRM, the Commission proposed amending Section 305.14 to require online insulation sellers to post labels and fact sheets on their websites for covered insulation products they sell directly to consumers. Large retailers commonly offer insulation for purchase through their websites. Though the current Rule requires retailers to “make fact sheets available to your customers,” it does not specify that fact sheets must be provided for online sales. In the NPRM, the Commission sought comment on the proposed change, including any burdens associated with providing such information online and any other associated issues.

example, controlling air movement within a wall cavity will not stop air that leaks between the foundation and the sill plate or between the wall joists and a window frame.” See https://web.ornl.gov/sci/buildings/tools/insulation/r-value/intro.

29 See 44 FR at 50226; and 68 FR 41872, 41877–41879 (July 15, 2003).
**Comments:** Two commenters supported the proposal; none opposed it.\(^{30}\) NAIMA explained that the burden associated with this requirement would be “nominal” and no different than existing burdens on insulation sellers.

**Discussion:** The final Rule adopts the proposed amendment. The new requirement for online fact sheets will effectuate the Rule’s original intent by ensuring online consumers have access to the same information (both fact sheets and labels) as shoppers in stores. Retailers can make these disclosures through a variety of means, such as using expandable thumbnail images of package labels and fact sheets, or with conspicuous links directly to the required information.

### F. Aging of Cellular Plastics

**Background:** In the NPRM, the Commission proposed continuing to require tests on cellular plastic insulations that fully reflect aging on the product’s R-value, as currently indicated in Section 460.5. In addition, the Commission proposed eliminating the Rule’s reference to the rescinded GSA Specification HH-I-530A aging standard, which appears to be obsolete. The Commission did not propose, as requested by several commenters, a new mandate that industry use only ASTM C1303 or CAN/ULC S770 (i.e., the LTTR (“long-term thermal resistance”) method) to measure aging. As discussed in detail in the NPRM, several commenters urged the Commission to adopt the LTTR method because, in their view, the test is now well-established and would ensure R-value disclosures for cellular plastic insulations accurately reflect aging effects. Others, however, opposed its adoption, questioning the method’s R-value results, coverage, and timeframe. In the NPRM, the Commission declined proposing a requirement that manufacturers use these methods in light of the significant disagreements about the tests’ accuracy, scope of coverage, and applicable time frames.

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\(^{30}\) NAIMA and ICAA.
Comments: Commenters generally supported the Commission’s proposal to retain a general requirement that sellers conduct R-value tests on samples of cellular plastic insulations that fully reflect the effect of aging on the product’s R-value. EPS-AI, for instance, stated that the Rule properly requires that tests for thermal resistance of polyurethane, polyisocyanurate, and extruded polystyrene fully reflect aging effects on the product’s R-value. AFM agreed the Rule should continue to require that manufacturers determine the full effect of aging on their R-values, describing this provision as “important protection for consumers.” NAIMA similarly supported retaining this provision. Commenters also supported the proposed elimination of the obsolete GSA aging standard. EPS-IA noted that the provision’s removal would have no adverse impacts.

Commenters, however, continued to express opposing views about incorporating the LTTR method into the Rule. XPSA agreed with the Commission’s decision to forgo adopting the aging standard. Reiterating its previous comments, XPSA stated that evidence does not demonstrate the method provides “a uniform means of accurately comparing different cellular plastic thermal insulations.” Others, however, continued to urge the Commission to mandate the LTTR method. EPS-IA argued that, by not adopting the widely accepted ASTM C1303 test, the Commission is failing to fulfill its mission to prevent deception in the marketing of home insulation products and that there is “very little opposition to this standard test method.” It also submitted commercial product literature that, in its view, demonstrates that the lack of mandatory test method has led to deceptive R-value figures from extruded polystyrene manufacturers. Additionally, EPS-IA characterized the spray polyurethane industry’s criticism of the LTTR method as “conjecture and self-serving opposition” that fails to hold up against

31 See NAIMA, EPS-IA, and PIMA.
32 83 FR at 2941.
evidence from Oak Ridge National Laboratories and ASTM. Similarly, PIMA argued the accuracy of ASTM C1303 is well-documented by industry research and DOE studies, and stated that any comments to the contrary are “without merit” and should have no bearing on the Commission’s decision. However, PIMA reiterated that the method is not applicable to closed-cell foam insulation products with impermeable facers. PIMA explained that ASTM C518 best measures the R-value of impermeable products (e.g., foil-faced polyisocyanurate insulation), which are being used more frequently as continuous exterior insulation in new residential construction. PIMA also recognized that other factors may support the FTC’s decision to forgo mandating ASTM C1303 for testing closed-cell foam insulation products but did not delineate those factors.

Discussion: Consistent with the NPRM, the final Rule retains the requirement in Section 460.5 that R-values fully reflect the effects of aging on cellular plastics and eliminates that section’s reference to the GSA Specification HH-I-530A aging standard. Commenters did not identify any adverse impacts from eliminating the Rule’s reference to the canceled GSA test. In addition, the final Rule does not mandate use of the LTTR method. Commenters on both the ANPR and NPRM disagreed about whether the Commission should mandate use of the LTTR method. Moreover, the record demonstrates that significant disagreements and concerns remain about various aspects of ASTM C1303 and CAN/ULC S770, including their accuracy, scope of coverage, and applicable timeframe. Nonetheless, because commenters did not identify a viable alternative test method, the Commission understands that many industry members will continue

33 Commenter Ji suggested that, because products may be stored in warehouses for a period of time after ASTM testing, the R-value reflected on the product label may no longer be accurate at the time of sale. Accordingly, Ji recommended that the test be done in a timely manner to maintain accuracy. However, the Rule already contains provisions related to aging, including the settling of blown cellulose and the aging of cellular plastics. 16 CFR 460.5(a)(1).
to use the LTTR method to gauge the effects of aging on R-value. If new developments occur in the future that would warrant its adoption as a regulatory requirement, the Commission may revisit the issue, and interested parties may petition the Commission to consider additional rulemaking.

G. Disclosures for Reflective Insulation

Background: Reflective insulations, primarily aluminum foils, work by reducing heat transfer when installed facing an airspace. The Rule requires reflective insulation manufacturers to use specific tests to determine R-values, and to disclose those ratings to consumers for particular applications. Section 460.5(c) requires industry members to test single-sheet systems using ASTM E 408-71 (“Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques”), or ASTM C 1371-04a (“Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers”). For reflective systems with more than one sheet, Section 460.5(b) requires the use of ASTM C 1363-97, “Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus,” in a test panel constructed according to ASTM C1224-03, “Standard Specification for Reflective Insulation for Building Applications,” and under the test conditions specified in ASTM C1224-03. Section 460.12 of the Rule also requires that labels for reflective insulation include “the number of foil sheets; the number and thickness of the air spaces; and the R-value provided by that system when the direction of heat flow is up, down, and horizontal.”

The Rule also covers radiant barrier insulations, which are generally installed in attics facing the open airspace. However, as the Commission has stated, R-value claims are not

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34 See 70 FR at 31264.
35 See 64 FR 48024, 48038–48039 (Sep. 1, 1999).
appropriate for these products because no generally accepted test procedure exists to determine their R-value.\footnote{68 FR at 41889-90.}

In the NPRM, the Commission did not propose new requirements regarding disclosures or testing for reflective insulations. However, the Commission sought comment on whether to replace the term “aluminum” with “reflective material” or a similar term because these insulation systems may not always involve aluminum.

Comments: Commenters generally supported the Commission’s decision to retain the Rule’s requirements for reflective insulation. NAIMA, for instance, supported the Rule’s existing label disclosures for reflective insulation products. RIMA also supported retaining the requirement, but offered several suggestions to improve the Rule’s provisions. First, it suggested technical amendments to reflective insulation-related terms. Specifically, it recommended replacing “aluminum foil” with “reflective insulation,” noting that low-emittance surfaces are not limited to aluminum foil or film. It also suggested replacing the term “emissivity” with “emittance,” explaining that, although these two terms often appear interchangeably, the ASTM test procedures incorporated in the Rule generally use the term emittance. Similarly, it suggested replacing the term “difference” with “differential” in the Rule’s test procedure section (460.5) to be consistent with the ASTM methods.

RIMA also recommended two substantive changes to the reflective insulation requirements. First, it suggested eliminating the reference to ASTM E408 for measuring emittance, explaining that this procedure measures “normal emittance,” while the other procedure allowed by the Rule, ASTM C1371, measures “hemispherical emittance.” Because “normal emittance” measurements are generally lower than “hemispherical emittance,” RIMA
asserted that ASTM E408 results generally lead to higher, and thus “overestimated,” R-values. Second, RIMA argued that 460.5(b) is overly restrictive because it limits use of the ASHRAE Handbook of Fundamentals to specific air space sizes from one line in Table 3 (pages 26.14 and 26.15). RIMA argued that the Rule should specifically allow “interpolation and moderate extrapolation for air spaces greater than 3.5” as stated in a footnote to the ASHRAE table.

Discussion: Based on the comments, the final Rule includes several technical amendments. First, it replaces references to “aluminum foil” and “foil” and similar words with the more general terms “reflective insulation” and “reflective” because, as noted in the NPRM, these insulation systems may not always involve aluminum. In addition, consistent with RIMA’s suggestion, the final Rule replaces the terms “emissivity” with “emittance” and “differential” with “difference” in Section 460.5 to be consistent with the terms used in the test procedures incorporated in the Rule. These minor conforming changes have no substantive impact on the existing requirements.

The Commission does not further amend the Rule’s reflective insulation provisions. Specifically, the amended Rule will continue to allow the use of ASTM E408 as well as C1371. Although the Commission may consider eliminating the test in the future, it declines to make such a change without providing an opportunity for public comment. Furthermore, RIMA’s comments did not indicate whether the inconsistencies between the ASTM E408 and C1371 have caused substantial problems in the marketplace nor did it explain the extent to which the test differences impact advertised R-values. In the future, if retaining ASTM E408 in the Rule
creates a substantive problem, stakeholders may petition the Commission to consider further Rule amendments.

Regarding RIMA’s proposal to allow extrapolation of values from the ASHRAE table, the Commission has already explained in a 2005 Federal Register Notice that “it does not intend to restrict the use of the tables only to those values specifically printed in the tables themselves.” Instead, the Commission recognized “that explanatory information in the footnotes to the ASHRAE handbook allow for interpolation and moderate extrapolation” and expected “industry members to use this guidance in complying with the Rule.” Commenters have not identified any ongoing problems stemming from this guidance or lack of a specific reference in the Rule. Accordingly, the Commission does not amend this part of the Rule.

H. Updating Test References

Background: In the NPRM, the Commission proposed updating Section 460.5 to reflect the most recent versions of the ASTM test procedures. In addition, to ensure consistency with the Office of Federal Register (OFR) regulations, it proposed removing Section 460.7 to eliminate automatic updates to the ASTM test procedures incorporated by reference in the Rule. Specifically, OFR regulations state that incorporation by reference is “limited to the edition of the publication that is approved,” and “future amendments or revisions of the publication are not included.” The proposed amendment would also ensure the Rule provides notice and an opportunity to comment on test updates before they are incorporated by reference. The Commission indicated that it would periodically review the Rule’s test procedures to ensure the Rule contains the most recent versions.

39 70 FR at 31270.
40 Id.
41 See 1 CFR 51.1(f).
Comments: Commenters supported the proposed amendments to update the Rule’s test procedure provisions. According to NAIMA, the change will ensure the Commission “provides notice and an opportunity to comment on updates before they are incorporated into the regulations.” PIMA expressed support for FTC’s continued reliance on consensus-based test standards such as those administered by ASTM because such “standards are continually reviewed by subject-matter experts and allow for broad stakeholder input through transparent development and maintenance processes.” It also encouraged FTC to consider the best method to update test standards “moving forward” and noted the burdensome process involved with updating the Rule’s references. AFM added that the Rule should change its ASTM reference to the organization’s current name, “ASTM International.” It also recommended the Rule state that the test methods are “developed” rather than “designed” by ASTM.

Discussion: Given the support for the test method updates announced in the NPRM, the Commission amends the Rule to reflect the most current test versions. In addition, the amendments remove Section 460.7 to eliminate automatic updates to the ASTM test procedures incorporated by reference in the Rule. The Commission will continue to update the test procedures as part of its routine Rule reviews. In the interim, if interested parties identify the need for any specific updates, they should petition the Commission for an amendment. The final Rule also updates the formal name for ASTM to “ASTM International” and changes the term “designed” to “developed” to better reflect ASTM’s role.

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42 PIMA and NAIMA. No commenters opposed this.
43 The final amendments reference the latest versions of three recently updated tests: ASTM C518-17, ASTM C739-17, and ASTM C1149-17.
44 It appears that ASTM tends to use the term “development” with regard to standards. See, e.g., 2016 Annual Book of ASTM Standards, Section 4, Vol. 04.06 (“Thermal Insulation: Building and Environmental Acoustics”), at iii (“[ASTM] is a globally recognized leader in the development and delivery of international voluntary standards.”).
I. Limited Format Disclosures

Background: In the NPRM, the Commission proposed amending the Rule to exempt space-constrained advertising from the required disclosures in Sections 460.18 and 460.19, which may be infeasible or impractical for some methods of advertising.

Comments: The commenters expressed different views on the proposal. NAIMA supported the amendment, explaining that the required disclosures “may be infeasible or impractical for some methods of advertising, such as [T]witter and mobile sources.” It also noted the amendment is consistent with similar exemptions for radio and television advertisements. ICAA, however, opposed the exemption, noting that digital advertising is likely to “outpace print and radio advertising,” making it the “mainstream communication channel for consumers.” In its view, the exemption would lead to an absence of disclosures “where the bulk of advertising dollars are expended,” and consumers would have no knowledge of the applicable federal rules for these claims. To address space-constrained formats, ICAA suggested the Rule require marketers to provide a short hyperlink (e.g., “See FTC disclosures here”) to take consumers directly “to the appropriate code sections.”

Discussion: As proposed in the NPRM, the final Rule exempts space-constrained advertisements from the affirmative disclosures in Sections 460.18 and 460.19. For example, the Rule requires the following statement in any insulation advertisement containing an R-value claim: “The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on R-values.” The amendment exempts such statements for space-constrained

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45 PIMA also supported the amendments.
46 Commenter Ji also opposed the exemption, stating that the current disclosures “help consumers make the right choice.”
47 The Commission has already excluded television and radio advertising from the more detailed disclosure requirements because it found meaningful disclosures are probably not effective in those media. See 70 FR at 31271; 51 FR 39650 (Oct. 30, 1986).
advertisements. It defines “space-constrained” as any communication made through interactive media (such as the Internet, online services, and software, including but not limited to Internet search results and banner ads) that has space, format, size or technological limitations or restrictions that effectively prevent marketers from making the required disclosures.

This change will reduce the Rule’s burdens without significantly reducing its effectiveness. Specifically, the Rule already provides several tiers of disclosures. In addition to the affirmative advertising disclosures, sellers must provide disclosures on package labels, as well as in fact sheets, that must be made available to customers before purchase. Furthermore, the final amendments add new requirements to ensure labels and fact sheets are available for online sales, making this important R-value information accessible to consumers before their purchase. In addition, the amendments do not create a blanket exemption for disclosures on all mobile devices or similar formats. Indeed, some of the required disclosures (e.g., R-value disclosures triggered by 460.18(b)-(c)) do not require significant space and thus are unlikely to qualify for the exemption. Accordingly, industry members must show there is insufficient space for the required disclosures to claim the exemption. Finally, the exemption does not alter advertisers’ obligation to follow the substantiation requirements in 460.19.48

**J. Mean Temperature**

*Background:* Since its promulgation in 1979, Section 460.5 of the Rule has required R-value testing at a 75°F mean temperature for most insulation products. In initially issuing this requirement, the Commission explained that the “choice of this particular temperature is based on a significant volume of record evidence that 75°F is already a widely-used test temperature and is incorporated in many voluntary industry standards and federal procurement

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48 Section 460.19 requires a reasonable basis for fuel savings claims and directs marketers to maintain proof of such claims for three years.
Section 460.5 requires testing at a 50°F temperature differential (i.e., the difference between the hot and cold surface during testing).

In response to the ANPR, some commenters recommended the Rule address insulation performance at mean temperatures lower than 75°F. Specifically, they suggested the Commission consider either requiring an additional R-value disclosure at a low mean temperature or requiring disclosures about the cold weather performance of certain insulations. In the NPRM (83 FR at 2942), the Commission did not propose revising the Rule’s mean test temperature requirement, nor did it propose specific affirmative disclosures for insulation products that may exhibit lower R-values at low temperatures. The Commission explained that, given the temperature differences throughout the country, no one temperature is likely to be sufficiently representative of consumer experiences. The Commission noted, however, that nothing in the FTC Act or the Rule prohibits sellers from promoting their products’ performance in low temperatures in their advertising. If a seller’s products have better R-values than others at low temperatures, it may make truthful, substantiated claims conveying its products’ advantages.

Comments: The commenters generally supported the Commission’s decision to retain the current mean temperature requirements. NAIMA, for example, agreed that the range of temperature differences throughout the country makes it unlikely a single temperature will be

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49 44 FR at 50227.
50 In initially issuing the Rule, the Commission did not attempt to specify a mean test temperature representative of any particular geographical region or season. Indeed, it reasoned that any attempt to do so would yield results inappropriate for other regions or seasons. Accordingly, the Commission chose a single temperature widely used in industry standards, recognizing the fact that it is not perfectly representative. See 64 FR at 48037; and 44 FR at 50219, 50227.
51 See 68 FR at 41878-41879.
52 See PIMA, XPSA, and NAIMA.
representative of consumer experiences. It also noted that mandatory R-value disclosures at additional temperatures would increase the industry burden without a corresponding consumer benefit. ACC did not oppose the proposal but looked for further guidance on specific disclosures and whether they are substantiated. Specifically, it asked whether a manufacturer can make additional R-value claims, beyond those required by the Rule, “at another temperature provided the statement is clearly qualified that the testing was conducted at another temperature.” Further, it inquired whether additional claims such as “R-value at XX degrees F” or “thermal resistance at XX degrees F” would be considered adequately substantiated, qualified, and otherwise compliant with the Rule and Section 5 of the FTC Act.

Discussion: The Commission declines to amend the Rule’s mean temperature requirements. As discussed in the NPRM, in publishing the original Rule, the Commission did not attempt to specify a mean test temperature representative of any particular geographical region or season. Further, given the temperature differences throughout the country, no one temperature is likely to be sufficiently representative of consumer experiences. Accordingly, the Commission established a single temperature widely used in industry standards, recognizing it provides a reasonable benchmark to compare claims. As discussed in the NPRM and in comments, this reasoning still holds true.

Regarding ACC’s questions about additional claims, the Commission reiterates its view that sellers may make truthful, substantiated claims conveying, for example, that their products have higher R-values at low temperatures compared to competing products. However, as the Commission considers the net impression of an entire advertisement to determine whether it is deceptive, the Commission declines to offer an opinion about ACC’s suggested advertising
claims in isolation. Industry members may consult existing FTC guidance in developing their own advertising claims.

K. R-value Per Inch Claims

**Background:** Section 460.20 of the Rule prohibits R-value per inch claims unless test results prove the product’s R-value per inch does not drop at greater thicknesses. As the Commission has explained previously, R-value per inch claims lead “consumers to believe that insulation R-values are linear,” when, in fact, they often are not. For many insulation products, R-value does not increase proportionally with thickness. Accordingly, unqualified R-value per inch claims are often deceptive. Therefore, the Rule prohibits these claims unless a differing, outstanding FTC Order applies or the seller has actual test results proving the product’s R-value per inch is constant at various thicknesses. In response to comments seeking further clarification, the Commission declined to propose amendments in NPRM because it lacked evidence indicating the Rule’s current language is ambiguous or confusing.

**Comments:** Commenters offered differing views on R-value per inch claims. ACC agreed with the Commission’s approach and indicated that the current Rule is clear and concise. However, NAIMA asked for further clarity and reiterated a concern, expressed in earlier comments, about a recent decision from the Better Business Bureau’s National Advertising

53 “[T]he Commission will evaluate the entire advertisement, transaction, or course of dealing in determining how reasonable consumers are likely to respond. Thus, in advertising the Commission will examine ‘the entire mosaic, rather than each tile separately.’” Deception Policy Statement, *supra* (quoting *FTC v. Sterling Drug*, 317 F.2d 669, 674 (2d Cir. 1963)).

54 The Commission determines whether an advertisement is deceptive by engaging “in a three-step inquiry, considering: (i) what claims are conveyed in the ad, (ii) whether those claims are false, misleading, or unsubstantiated, and (iii) whether the claims are material to prospective consumers.” *POM Wonderful, LLC v. F.T.C.*, 777 F.3d 478, 490 (D.C. Cir. 2015), *cert. denied*, 136 S. Ct. 1839 (2016). The adequacy of disclosures may depend on how consumers interpret particular claims, including the net consumer impression of the advertisement. *See Kraft, Inc. v. F.T.C.*, 970 F.2d 311, 314, 318 (7th Cir. 1992).

55 44 FR at 50234.
Division (“NAD”) involving cellulose insulation claims. In particular, NAIMA requested the Commission clarify what constitutes “actual test data” under the Rule, a concept contested in the NAD proceeding. According to NAIMA, cellulose manufacturers have substantiated their R-value claims at multiple thicknesses merely through a coverage chart, which, in NAIMA’s view, does not constitute “actual test data.” Finally, NAIMA urged the Commission to amend the Rule to include the following clarification: “Any express or implied claim that fibrous insulation R-value is linear with thickness is per se misleading and, therefore, prohibited, unless qualifying for one of the exceptions set forth in this section.”

Discussion: The Commission declines to amend the Rule’s R-value per inch provision or to require marketers to make additional disclosures related specifically to fibrous insulation. As discussed in the NPRM, in adopting this provision, the Commission recognized that many consumers may believe the relationship between R-value and thickness is linear. Specifically, the Commission explained that misleading “references to the R-value for a one-inch thickness of the material will encourage consumers to think that it is appropriate to multiply this figure by the desired number of inches, as though the R-value per inch was constant.” The current provision addresses this issue by prohibiting R-value per inch claims unless supported by the tests required by the Rule, which the Commission considers to be competent and reliable scientific evidence. Furthermore, Section 460.20 applies to all insulation. Therefore, a specific provision relating to fibrous insulation, as some commenters suggested, is unnecessary. Finally, the Commission lacks a basis to address the claims reviewed by NAD, given the limited information in the comments and the absence of views from cellulose manufacturers involved in the dispute.

L. Spray Foam Disclosures

56 NAIMA (citing Applegate Insulation (Cellulose Insulation Products), Case #5961, NAD/CARU Case reports (June 2016)).
Background and Comments: NAIMA asked the Commission to consider new regulatory requirements for spray foam insulation (SPF). Specifically, NAIMA raised concerns that the Rule does not adequately ensure SPF products deliver their advertised R-value. Unlike other insulation sellers, SPF installers, according to NAIMA, must essentially “manufacture” their insulation on-site to deliver the advertised thermal performance or R-value. In doing so, NAIMA explained that installers must manage a process involving “generators, compressors, proportioning pumps, temperature controls, heated hoses and spray guns” while wearing personal protective equipment. NAIMA claimed that certain SPF companies advocate “underfilling” wall cavities because, according to those companies, the superior air sealing qualities of foam insulation compensate for any reductions in R-value due to such a practice. NAIMA objects to such representations and argued that no “reliable, scientifically validated method” exists to support claims about R-value degradation due to air infiltration. In its view, air barriers, which are separate from insulation and typically required for new homes, already prevent any air infiltration through fiberglass or other types of insulation. NAIMA further stated that, as long as the wall assembly is sealed to code specifications, all forms of insulation achieve the same thermal performance.

To address these concerns, NAIMA recommended the Commission require that: 1) SPF installations entirely fill the wall cavity; 2) SPF installers maintain testing records; 3) SPF manufacturers give homeowners detailed information about “the manufacturing process that will occur in their residence”; 4) SPF installers disclose the mixture of chemicals and installation of foam in the home; and 5) manufacturer and installer websites publicly disclose information about SPF insulation R-values. NAIMA stated that, in lieu of these specific requirements, the Commission could add a general requirement applicable to all forms of insulation, including
fiberglass and mineral wool, that installers follow manufacturer’s installation recommendations. Additionally, commenter Harrison raised concerns about the fire risks associated with “sprayed and sheet insulation materials” and called for improved regulation to give clarity and guidance to industry members.

**Discussion:** The Commission does not propose Rule requirements to address SPF insulation. NAIMA highlights an ongoing debate, discussed in the NPRM (83 FR at 2938-2940), between foam and fiberglass manufacturers about the impact of an insulation’s air infiltration qualities on insulation performance and overall home efficiency. However, NAIMA has not established a prevalence of deceptive practices that would support the sweeping Rule amendments it recommends. Furthermore, the Rule already addresses many of the issues NAIMA raised, such as the need for installers to deliver the advertised R-value (e.g., 460.17) and the importance of properly installing insulation (e.g., 460.12 and 460.13).

The Rule requires appropriate R-value disclosures and the substantiation of claims made in these disclosures, and prohibits false or misleading claims. It does not mandate the R-value of insulation installed in homes nor does it address whether some forms of insulation may be more effective than others for certain applications. These issues generally fall within the authority and expertise of state and local energy code officials, DOE experts, and other building professionals. This does not mean that the Commission endorses any particular claims or practices in the market. Any representations made by insulation sellers, whether covered by the R-value Rule or not, must be substantiated and otherwise not violate Section 5 of the FTC Act. Thus, manufacturers must back up any claims about insulation performance with competent and reliable scientific evidence. The Commission will take NAIMA’s comments under advisement and continue to follow developments in the market. Finally, the Commission does not propose
any changes to the Rule to address insulation safety issues. Safety issues generally fall within
the mission and authority of other agencies such as the Consumer Products Safety Commission.

VI. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601 through 612, requires that the
Commission provide an Initial Regulatory Flexibility Analysis (IRFA) with a proposed rule and
a Final Regulatory Flexibility Analysis (FRFA), if any, with the final rule, unless the
Commission certifies that the rule will not have a significant economic impact on a substantial
number of small entities. See 5 U.S.C. 603 through 605.

The Commission does not anticipate that the amendments will have a significant
economic impact on a substantial number of small entities. The Commission recognizes that
some of the affected manufacturers may qualify as small businesses under the relevant
thresholds. Because the R-value Rule covers home insulation manufacturers and retailers,
professional installers, new home sellers, and testing laboratories, the Commission believes that
any amendments to the Rule may affect a substantial number of small businesses. However, the
Commission does not expect that the economic impact of the amendments will be significant
because these amendments involve updates, clarifications and minor changes to the Rule.

Although the Commission has certified under the RFA that the amendments would not
have a significant impact on a substantial number of small entities, the Commission has
determined, nonetheless, that it is appropriate to publish an FRFA in order to explain the impact
of the amendments on small entities as follows:

A. Description of the Reasons That Action by the Agency Is Being Taken

The Commission initiated this rulemaking to assist consumers in their insulation
purchases by clarifying several provisions, updating requirements, ensuring proper test
procedures are followed to determine the R-values of covered products, and exempting certain types of advertising from affirmative disclosures.

B. Issues Raised by Comments in Response to the IRFA

The Commission did not receive any comments specifically related to the impact of the final amendment on small businesses. No comments were filed by the Chief Counsel for Advocacy of the Small Business Administration.

C. Small Entities to Which the Proposed Rule Will Apply

The R-value Rule covers home insulation manufacturers and retailers, professional installers, new home sellers, and testing laboratories. The Commission recognizes that many affected entities may qualify as small businesses under the relevant thresholds. The Commission does not expect, however, that the economic impact of implementing the amendments will be significant because the Commission plans to provide businesses with ample time to implement the requirements, and the amendments require information disclosures that do not impose substantial burdens.

D. Projected Reporting, Recordkeeping and Other Compliance Requirements

The Commission anticipates that the amendments may slightly increase reporting or recordkeeping requirements associated with the Rule for some small entities, while reducing some compliance requirements associated with advertising in space-constrained formats. The amendments likely will increase some compliance requirements by extending the requirement to substantiate R-value claims to non-insulation products. The amendments will also require manufacturers to update labels and fact sheets, but provides substantial time for manufacturers to update these materials. The amendments will also likely reduce burden by exempting certain disclosures for limited format advertising.
E. Description of Steps Taken To Minimize Significant Economic Impact, If Any, on Small Entities, Including Alternatives

The Commission did not propose any specific small entity exemption or other significant alternatives, but sought comment and information on the need, if any, for alternative compliance methods that would reduce the economic impact of the Rule on small entities. In particular, the Commission sought comments on whether it should time the Rule’s effective date to provide additional time for small business compliance. No comments identified any new compliance costs, and several comments argued that some of the amendments will reduce compliance costs.

VII. Paperwork Reduction Act

The current Rule contains recordkeeping, disclosure, testing, and reporting requirements that constitute information collection requirements as defined by 5 CFR 1320.3(c), the definitional provision within the Office of Management and Budget (OMB) regulations that implement the Paperwork Reduction Act (PRA). OMB has approved the Rule’s existing information collection requirements through January 31, 2021 (OMB Control No. 3084-0109). As detailed below, the amendments’ changes to the Rule’s labeling requirements should not alter in the net the Rule’s overall PRA burden.57

The Commission adopts a small number of rule amendments designed to clarify the Rule, update its disclosures, and require specific testing procedures for non-insulation products. In the Commission’s view, the amendments will not increase the PRA burden associated with those testing procedures. Under the current requirements, any marketer making an R-value claim must have competent and reliable evidence to back that claim. Accordingly, it is likely that such

57 The PRA analysis for this rulemaking focuses strictly on the information collection requirements created by and/or otherwise affected by the amendments. Unaffected information collection provisions have previously been accounted for in past FTC analyses under the Rule and are covered by the current PRA clearance from OMB.
marketers already conduct testing for claims under the normal course of business. Thus, the requirement should not increase those burdens. The amendments regarding the small changes to fact sheets and online displays of fact sheets and labels also should not increase the Rule’s current PRA burden. The Rule already requires retailers to provide fact sheets to their consumers. In addition, any potential increase in burden resulting from those amendments would likely be offset by the amendment exempting space-constrained advertising from the affirmative disclosures in Sections 460.18 and 460.19.\textsuperscript{58} Finally, no comments disputed this PRA analysis when presented in the NPRM. Consequently, the Commission believes the amendments will not result in incremental PRA burden.

VIII. Incorporation by Reference

Consistent with 5 U.S.C. 552(a) and 1 CFR part 51, the Commission incorporates the specifications of the following documents published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. and ASTM International:\textsuperscript{59}

• 2017 ASHRAE Handbook—Fundamentals, I-P Edition (published 2017) (ASHRAE Handbook covers basic principles and data used in the heating, ventilation, air conditioning and refrigeration industry);


\textsuperscript{58} The fact sheet amendments in Section 460.13(e) do not constitute a “collection of information” under the PRA because they are a “public disclosure of information originally supplied by the government to the recipient for the purpose of disclosure to the public” as indicated in OMB regulations. \textit{See} 5 CFR 1320.3(c)(2).

\textsuperscript{59} Quoted descriptions of ASTM standards from \texttt{www.astm.org}. 

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flux through materials having a “low” thermal conductivity and commonly denoted as “thermal insulators.”);


- ASTM C 739–17, “Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation” (August 2017) (“This specification covers the composition and physical requirements of chemically treated, recycled cellulosic fiber loose-fill type thermal insulation for use in attics or enclosed spaces in housing, and other framed buildings within the ambient temperature range from - 45 to 90 °C by pneumatic or pouring application.”);

- ASTM C 1045–07 (reapproved 2013), “Standard Practice for Calculating Thermal Transmission Properties from Steady-State Conditions (published January 2014)” (“This practice is intended to provide the user with a uniform procedure for calculating the thermal transmission properties of a material or system from standard test methods used to determine heat flux and surface temperatures.”);


supported spray applied cellulosic fibers intended for use as thermal insulation or an acoustical
absorbent material, or both.”); 
Applications” (published November 2015) (“This specification covers the general requirements
and physical properties of reflective insulations for use in building applications.”);
Assemblies by Means of a Hot Box Apparatus” (published June 2011) (“This test method
establishes the principles for the design of a hot box apparatus and the minimum requirements
for the determination of the steady state thermal performance of building assemblies when
exposed to controlled laboratory conditions. This method is also used to measure the
thermal performance of a building material at standardized test conditions such as those required
in ASTM material Specifications C739, C764, C1224 and Practice C1373.”);
Near Room Temperature Using Portable Emissometers” (published June 2015) (“This test
method covers a technique for determination of the emittance of opaque and highly thermally
conductive materials using a portable differential thermopile emissometer. The purpose of the
test method is to provide a comparative means of quantifying the emittance of materials near
room temperature.”);
• ASTM C 1374–14, “Standard Test Method for Determination of Installed Thickness of
Pneumatically Applied Loose-Fill Building Insulation” (published May 2014) (“This test method
covers determination of the installed thickness of pneumatically applied loose-fill building
insulations prior to settling by simulating an open attic with horizontal blown applications.”);
• ASTM E 408–13, “Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques” (published June 2013) (“These test methods cover determination of the total normal emittance of surfaces by means of portable, as well as desktop, inspection meter instruments.”).


IX. Final Rule Language

List of Subjects in 16 CFR Part 460

Advertising, Incorporation by reference, Insulation, Labeling, Reporting and recordkeeping requirements, Trade practices.

For the reasons stated in the preamble, the Federal Trade Commission amends 16 CFR part 460 as follows:

PART 460–LABELING AND ADVERTISING OF HOME INSULATION

1. The authority citation for part 460 continues to read as follows:

2. Revise § 460.1 to read as follows:

§ 460.1 What this regulation does.

This regulation deals with R-value claims, as well as home insulation labels, fact sheets, ads, and other promotional materials in or affecting commerce, as “commerce” is defined in the Federal Trade Commission Act. If you are covered by this regulation, breaking any of its rules is an unfair or deceptive act or practice or an unfair method of competition under Section 5 of that Act. You can be fined heavily (up to the civil monetary penalty amount specified in §1.98 of this chapter) each time you break a rule.

3. Revise § 460.2 to read as follows:

§ 460.2 What is home insulation.

Insulation is any material mainly used to slow heat flow. It may be mineral or organic, fibrous, cellular, or reflective. It may be in rigid, semirigid, flexible, or loose-fill form. Home insulation is for use in old or new homes, condominiums, cooperatives, apartments, modular homes, or mobile homes. It does not include pipe insulation. It does not include any kind of duct insulation except for duct wrap. It also includes insulation developed and marketed for commercial or industrial buildings that is also marketed for and used in residential buildings.

4. Revise § 460.3 to read as follows:

§ 460.3 Who is covered.

You are covered by this regulation if you are a member of the home insulation industry. This includes individuals, firms, partnerships, and corporations. It includes manufacturers, distributors, franchisors, installers, retailers, utility companies, and trade associations. Advertisers and advertising agencies are also covered. So are labs doing tests for industry
members. If you sell new homes to consumers, you are covered. If you make R-value claims for non-insulation products described in § 460.22 of this part, you are covered by the requirements of that section.

5. Revise § 460.4 to read as follows:

§ 460.4 When the rules apply.

You must follow these rules each time you import, manufacture, distribute, sell, install, promote, or label home insulation. You must follow them each time you prepare, approve, place, or pay for home insulation labels, fact sheets, ads, or other promotional materials for consumer use. You must also follow them each time you supply anyone covered by this regulation with written information that is to be used in labels, fact sheets, ads, or other promotional materials for consumer use. Testing labs must follow the rules unless the industry members tell them, in writing, that labels, fact sheets, ads, or other promotional materials for home insulation will not be based on the test results. You must follow the requirements of § 460.22 of this part each time you make an R-value claim for non-insulation products marketed in whole or in part to reduce residential energy use by slowing heat flow.

6. Revise § 460.5 to read as follows:

§ 460.5 R-value tests.

R-value measures resistance to heat flow. R-values given in labels, fact sheets, ads, or other promotional materials must be based on tests done under the methods listed below. They were developed by ASTM International. The test methods are:


(1) For polyurethane, polyisocyanurate, and extruded polystyrene, the tests must be done on samples that fully reflect the effect of aging on the product’s R-value.

(2) For loose-fill cellulose, the tests must be done at the settled density determined under paragraph 8 of ASTM C739-17, “Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation.”

(3) For loose-fill mineral wool, self-supported, spray-applied cellulose, and stabilized cellulose, the tests must be done on samples that fully reflect the effect of settling on the product's R-value.

(4) For self-supported spray-applied cellulose, the tests must be done at the density determined pursuant to ASTM C1149-17, “Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation.”

(5) For loose-fill insulations, the initial installed thickness for the product must be determined pursuant to ASTM C1374-14, “Standard Test Method for Determination of Installed Thickness
of Pneumatically Applied Loose-Fill Building Insulation,” for R-values of 13, 19, 22, 30, 38, 49 and any other R-values provided on the product's label pursuant to §460.12.


(d) For insulation materials with reflective facings, you must test the R-value of the material alone (excluding any air spaces) under the methods listed in paragraph (a) of this section. You can also determine the R-value of the material in conjunction with an air space. You can use one of two methods to do this:
(1) You can test the system, with its air space, under ASTM C1363-11, “Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus,” which is incorporated by reference in paragraph (a) of this section. If you do this, you must follow the rules in paragraph (a) of this section on temperature, aging and settled density.

(2) You can add up the tested R-value of the material and the R-value of the air space. To get the R-value for the air space, you must follow the rules in paragraph (b) of this section.

(e) The standards required in this section are incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51.

All approved material is available for inspection at the FTC Library, (202) 326–2395, Federal Trade Commission, Room H–630, 600 Pennsylvania Avenue NW, Washington, DC 20580. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to www.archives.gov/federal-register/cfr/ibr-locations.html. Copies of materials and standards incorporated by reference may be obtained from the issuing organizations listed in this section.

(1) ASHRAE Headquarters, 1791 Tullie Circle, NE, Atlanta, GA 30329; telephone (404) 636–8400; https://www.ashrae.org.


(ii) [Reserved]

(2) ASTM Int’l, 100 Barr Harbor Drive, P.O. Box C700, West Conshocken, PA 19428–2959, 877–909–2786, www.astm.org/.


(2) [Reserved]

7. In § 460.6, remove the words “aluminum foil” and add, in their place, the words “reflective insulation.”
8. Remove and reserve § 460.7.

§ 460.7 [Removed and Reserved]

9. In § 460.9(e), remove the words “aluminum foil” and “emissivity,” and add, in their place, the words “reflective insulation” and “emittance” respectively.

10. Revise § 460.12(b)(4) and (b)(5) to read as follows:

§ 460.12 Labels.

(b) * * * *

(4) For reflective insulation: the number of sheets; the number and thickness of the air spaces; and the R-value provided by that system when the direction of heat flow is up, down, and horizontal. You can show the R-value for only one direction of heat flow if you clearly and conspicuously state that the insulation can only be used in that application.

(5) For insulation materials with reflective facings, you must follow the rule that applies to the material itself. For example, if you manufacture boardstock with a reflective facing, follow paragraph (b)(3) of this section. You can also show the R-value of the insulation when it is installed in conjunction with an air space. This is its “system R-value.” If you do this, you must clearly and conspicuously state the conditions under which the system R-value can be attained.

11. In § 460.13, revise paragraph (e) and add paragraph (f) to read as follows:

§ 460.13 Fact Sheets

(e) After the chart and any statement dealing with the specific type of insulation, ALL fact sheets must carry this statement, boxed, in 12-point type:
READ THIS BEFORE YOU BUY
What You Should Know About R-values

The chart shows the R-value of this insulation. R means resistance to heat flow. The higher the R-value, the greater the insulating power. Compare insulation R-values before you buy.

There are other factors to consider. The amount of insulation you need depends mainly on the climate you live in. Also, your fuel savings from insulation will depend upon the climate, the type and size of your house, the amount of insulation already in your house, your fuel use patterns and family size, proper installation of your insulation, and how tightly your house is sealed against air leaks. If you buy too much insulation, it will cost you more than what you’ll save on fuel.

To get the marked R-value, it is essential that this insulation be installed properly.

(f) For R-19 insulation batts, the fact sheet must also disclose the insulation’s R-value when installed in wall cavities where the insulation’s thickness exceeds the depth of the cavity.

12. Revise § 460.14 to read as follows:

§ 460.14 How retailers must handle labels and fact sheets.

If you sell insulation to do-it-yourself customers, you must have fact sheets for the insulation products you sell. You must make the fact sheets available to your customers, whether you offer insulation products for sale offline or online. You can decide how to do this, as long as your insulation customers are likely to notice them. For example, you can put them in a display, and let customers take copies of them. You can keep them in a binder at a counter or service desk, and have a sign telling customers where the fact sheets are. You need not make the fact sheets available to customers if you display insulation packages on the sales floor where your
insulation customers are likely to notice them and each individual insulation package offered for
sale contains all package label and fact sheet disclosures required by §§ 460.12 and 460.13. If
you are offering products for sale online, the product labels and fact sheets required by this part,
or a direct link to this information, must appear clearly and conspicuously and in close proximity
to the covered product’s price on each web page that contains a detailed description of the
covered product and its price.

13. In § 460.17, remove the words “aluminum foil” and add, in their place, the words
“reflective insulation.”

14. Revise paragraph (e) of § 460.18 to read as follows:

§460.18 Insulation ads.

* * * * *

(e) The affirmative disclosure requirements in § 460.18 do not apply to television or radio
advertisements or to space-constrained advertisements. For the purposes of this part, “space-
constrained advertisement” means any communication made through interactive media (such as
the internet, online services, and software, including but not limited to internet search results and
banner ads) that has space, format, size or technological limitations or restrictions that prevent
industry members from making disclosures required by this part clearly and conspicuously.
Industry members maintain the burden of showing that there is insufficient space to provide the
disclosures that this part otherwise requires be made clearly and conspicuously.

15. Revise paragraph (g) of § 460.19 to read as follows:

§460.19 Savings claims.

* * * * *
(g) The affirmative disclosure requirements in § 460.19 do not apply to television or radio advertisements or to space-constrained advertisements. “Space-constrained advertisement” is defined in §460.18(e).

16. Redesignate §§ 460.22 through 460.24 as §§ 460.23 through 460.25 and add a new § 460.22 to read as follows:

**§ 460.22 R-value Claims for Non-Insulation Products**

If you make an R-value claim for a product, other than a fenestration-related product, that is not home insulation and is marketed in whole or in part to reduce residential energy use by slowing heat flow, you must test the product pursuant to § 460.5 of this part using a test or tests in that section appropriate to the product. Any advertised R-value claims must fairly reflect the results of those tests. For the purposes of this section, fenestration-related products include windows, doors, and skylights as well as attachments for those products.
17. In Appendix to Part 460 – Exemptions, add paragraph (d) to read as follows:

**In Appendix to Part 460 – Exemptions**

* * * * *

(d) The requirements in §§ 460.6 through 460.21 of this part do not apply to R-value claims covered by § 460.22.

By direction of the Commission.

Donald S. Clark
Secretary.