

(4) For self-supported spray-applied cellulose, the tests must be done at the settled density determined pursuant to ASTM C 1149-97, "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 C 1374-97, "Determination of Installed Thickness of Pneumatically Applied Loose-Fill Building Insulation," for R-values of 11, 13, 19, 22, 24, 32, 40 and any other R-values provided on the product's label pursuant to § 460.12.

(b) Single sheet systems of aluminum foil must be tested with ASTM E 408-71 (Reapproved 1996), "Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques," or ASTM C 1371-98, "Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers." This tests the emissivity of the foil—its power to radiate heat. To get the R-value for a specific emissivity level, air space, and direction of heat flow, use the tables in the most recent edition of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers' (ASHRAE) Fundamentals Handbook, if the product is intended for applications that meet the conditions specified in the tables. You must use the R-value shown for 50 degrees Fahrenheit, with a temperature differential of 30 degrees Fahrenheit.

(c) Aluminum foil systems with more than one sheet, and single sheet systems of aluminum foil that are intended for applications that do not meet the conditions specified in the tables in the most recent edition of the ASHRAE Fundamentals Handbook, must be tested with 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 C 1224-99, "Standard Specification for Reflective Insulation for Building Applications," and under the test conditions specified in ASTM C 1224-99. To get the R-value from the results of those tests, use the formula specified in ASTM C 1224-99.

(d) For insulation materials with foil 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 C 1363-97,

"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 listed above are incorporated by reference into this section. These standards were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at the Federal Trade Commission, Consumer Response Center, Room 130, 600 Pennsylvania Avenue, NW, Washington, DC 20580, or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC. Copies of materials and standards incorporated by reference may be obtained from the issuing organizations listed in this section.

(1) The American Society of Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(i) ASTM C 177-97 (Reapproved 1993), "Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus."

(ii) ASTM C 236-89 (Reapproved 1993), "Standard Test Method for Steady-State Thermal Performance of Building Assemblies by Means of a Guarded Hot Box."

(iii) ASTM C 518-95, "Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus."

(iv) ASTM C 578-95, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation."

(v) ASTM C 591-94, "Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation."

(vi) ASTM C 739-97, "Standard Specification for Cellulosic Fiber (Wood-Base) Loose-Fill Thermal Insulation."

(vii) ASTM C 1029-96, "Standard Specification for Spray-Applied Rigid Cellular Polyurethane Thermal Insulation."

(viii) ASTM C 1045-97, "Standard Practice for Calculating Thermal Transmission Properties from Steady-State Heat Flux Measurements."

(ix) ASTM C 1114-98, "Standard Test Method for Steady-State Thermal

Transmission Properties by Means of the Thin-Heater Apparatus."

(x) ASTM C 1149-97, "Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation."

(xi) ASTM C 1224-99, "Standard Specification for Reflective Insulation for Building Applications."

(xii) ASTM C 1363-97, "Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus."

(xiii) ASTM C 1371-98, "Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers."

(xiv) ASTM C 1374-97, "Determination of Installed Thickness of Pneumatically Applied Loose-Fill Building Insulation."

(xv) ASTM E 408-71 (Reapproved 1996), "Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques."

(2) The American Society of Heating, Refrigerating, and Air-Conditioning Engineers' (ASHRAE), 1791 Tullie Circle, N.E., Atlanta, Georgia 30329. ASHRAE Fundamentals Handbook (2001 edition).

(3) U.S. General Services Administration (GSA), 1800 F Street, NW Washington, DC 20405. GSA Specification HH-I-530A.

4. Revise § 460.8 to read as follows:

§ 460.8 R-value tolerances.

If you are a manufacturer of home insulation, the mean R-value of sampled specimens of a production lot of insulation you sell must meet or exceed the R-value shown in a label, fact sheet, ad, or other promotional material for that insulation. A production lot for the purposes of this section means a definite quantity of the product manufactured under uniform conditions of production. No individual specimen of the insulation you sell can have an R-value more than 10% below the R-value shown in a label, fact sheet, ad, or other promotional material for that insulation. If you are not a manufacturer, you can rely on the R-value data given to you by the manufacturer, unless you know or should know that the data is false or not based on the proper tests.

5. Revise § 460.12 to read as follows:

§ 460.12 Labels.

If you are a manufacturer, you must label all packages of your insulation. The labels must contain:

(a) The type of insulation.

(b) A chart showing these items:

(1) For batts and blankets of any type: the R-value, length, width, thickness, and square feet of insulation in the package.