

1 Department of Public Service

2

3 Adopted Permanent Rules Relating to Thermal Insulation Standards

4

5 Rules as Adopted

6 7640.0110 APPLICABILITY.

7 Subpart 1. **Types of residential insulation products**

8 **covered.** This chapter applies to insulation products for use in
9 residential buildings. These include insulation for walls,
10 ceilings, floors, foundation walls, pipe insulation, duct
11 insulation, and retrofit water heater blanket insulation.

12 Not included are insulation used in manufactured
13 appliances, windows, and doors.

14 [For text of subps 2 to 4, see M.R.]

15 7640.0120 DEFINITIONS.

16 [For text of subps 1 and 2, see M.R.]

17 Subp. 3. **Approved laboratory.** "Approved laboratory" means
18 any testing facility, including a facility owned or operated by
19 a manufacturer, that has been accredited by one or more of the
20 following agencies to perform the required test:

21 A. United States Department of Commerce, National
22 Voluntary Laboratory Accreditation Program (NVLAP),
23 Gaithersburg, Maryland;

24 B. American Association for Laboratory Accreditation,
25 Gaithersburg, Maryland; or

26 C. Standards Council of Canada, Ottawa, Ontario,
27 Canada.

28 Exception: In the event that an approved laboratory
29 program is temporarily delayed or is not capable of being
30 accredited to perform a test or tests, a testing laboratory
31 possessing the appropriate equipment, facilities, and qualified
32 personnel to perform the required testing is an approved
33 laboratory.

34 [For text of subps 4 to 25, see M.R.]

35 Subp. 26. [See repealer.]

1 7640.0130 INSULATION MATERIALS STANDARDS.

2 [For text of subpart 1, see M.R.]

3 Subp. 2. **General testing requirements.** General testing
4 requirements for regulated thermal insulation materials in this
5 part are as follows:

6 [For text of item A, see M.R.]

7 B. All regulated thermal insulation materials must be
8 tested for compliance with the standards according to subitems
9 (1) to (4).

10 (1) Required testing must be performed by an
11 approved laboratory within two years of the filing of the
12 initial report required by part 7640.0150.

13 (2) The thermal insulation material chosen for
14 testing must be representative of material produced by the
15 manufacturer during normal production runs.

16 (3) Testing for each type of insulation must be
17 performed in accordance with the methods specified in subparts 3
18 to 8.

19 (4) Insulation must have flammability
20 characteristics in accordance with the Uniform Building Code,
21 sections 1712 and 1713, for its intended uses.

22 [For text of items C and D, see M.R.]

23 Subp. 3. **Cellulose insulation.**

24 [For text of item A, see M.R.]

25 B. Cellulose fiber spray-applied must comply with
26 ASTM C 1149.

27 (1) If the product in loose-fill form meets the
28 criteria in ASTM C 1149, section 4.8, for corrosion, then a test
29 of the product in spray-applied form is unnecessary.

30 ~~(2) If the product in loose-fill form meets the~~
31 ~~criteria in ASTM C 1149, section 4.10, for odor emission, then a~~
32 ~~test of the product in spray-applied form is unnecessary.~~

33 (3) If the product in loose-fill form meets the
34 criteria in ASTM C 1149, section 4.7, for fungi resistance, then
35 a test of the product in spray-applied form is unnecessary.

1 [For text of subps 4 to 7, see M.R.]

2 Subp. 8. **Other insulation.** Insulation other than
3 insulation specified in subparts 1 to 7 must comply with the
4 requirements in items A to F.

5 [For text of items A to D, see M.R.]

6 E. The product must not produce a detectable odor
7 that is classified as objectionable and strong or very strong by
8 two or more panel members when tested in accordance with ASTM C
9 739, section 13, or ASTM C 553, section 15.

10 [For text of item F, see M.R.]

11 7640.0160 APPLICATION AND INSTALLATION STANDARDS.

12 [For text of subpart 1, see M.R.]

13 Subp. 2. **Application and inspection.**

14 [For text of items A to D, see M.R.]

15 E. Installation of radiant barrier systems must be in
16 conformance with ASTM C 1158.

17 F. Installers of urea formaldehyde foam insulation
18 shall conform with Minnesota Statutes, section 325F.18, and
19 Minnesota Rules, parts 4620.1600 to 4620.2100.

20 G. State and local agencies using appropriated
21 federal funds and persons contracting with state or local
22 agencies with respect to work performed under the contracts
23 shall comply with Code of Federal Regulations, title 40, part
24 248, Guideline for Federal Procurement of Building Products
25 Containing Recovered Materials.

26 [For text of subp 3, see M.R.]

27 7640.0180 INCORPORATIONS BY REFERENCE AND CITATIONS.

28 [For text of subpart 1, see M.R.]

29 Subp. 2. **ASTM.** The following ASTM standards are
30 incorporated by reference:

31 A. ASTM C 168-90, Terminology Relating to Thermal
32 Insulating Materials.

33 [For text of item B, see M.R.]

34 C. ASTM C 236-89, Standard Test Method for Steady
35 State Thermal Performance of Building Assemblies by Means of a

1 Guarded Hot Box.

2 [For text of item D, see M.R.]

3 E. ASTM C 516-80 (reapproved 1990), Standard
4 Specification for Vermiculite Loose-Fill Thermal Insulation.

5 F. ASTM C 518-91, Standard Test Method for Steady
6 State Heat Flux Measurements and Thermal Transmission Properties
7 by Means of the Heat Flow Meter Apparatus.

8 G. ASTM C 549-81 (reapproved 1986), Standard
9 Specification for Perlite Loose Fill Insulation.

10 [For text of items H to K, see M.R.]

11 L. ASTM C 727-90, Standard Recommended Practice for
12 Use of Reflective Insulation in Building Constructions.

13 M. ASTM C 739-91, Standard Specification for
14 Cellulosic Fiber (wood-base) Loose-Fill Thermal Insulation.

15 N. ASTM C 764-91, Standard Specification for Mineral
16 Fiber Loose-Fill Thermal Insulation.

17 [For text of item O, see M.R.]

18 P. ASTM C 976-90, Standard Test Method for Thermal
19 Performance of Building Assemblies by Means of a Calibrated Hot
20 Box.

21 [For text of item Q, see M.R.]

22 R. ASTM C 1015-84 (reapproved 1990), Standard
23 Practice for Installation of Cellulosic and Mineral Fiber
24 Loose-Fill Thermal Insulation.

25 S. ASTM C 1029-90, Standard Specification for
26 Spray-Applied Rigid Cellular Polyurethane Thermal Insulation.

27 [For text of items T and U, see M.R.]

28 V. ASTM C 1149-90, Specification for Self-Supported
29 Spray-Applied Cellulosic Thermal, or Acoustical Insulation, or
30 Both.

31 W. ASTM C 1158-90, Practice for Use and Installation
32 of Radiant Barrier Systems (RBS) in Building Constructions.

33 X. ASTM D 2842-69 (reapproved 1975), Standard Test
34 Method for Water Absorption of Rigid Cellular Plastics.

35 Y. ASTM E 84-84 Revision A, Surface Burning
36 Characteristics of Building Materials.

1 Z. ASTM E 408-71 (reapproved 1985), Standard Test
2 Methods for Total Normal Emittance of Surfaces Using Inspection
3 Meter Techniques.

4 [For text of subp 2a, see M.R.]

5 Subp. 3. **Other incorporation and citations.** The following
6 non ASTM standards are also incorporated by reference:

7 [For text of items A to E, see M.R.]

8 F. Uniform Building Code (1988 Edition), by the
9 International Conference of Building Officials.

10 [For text of items G to L, see M.R.]

11 Subp. 4. **Availability.** The standards incorporated by
12 reference are available for public inspection as follows:

13 A. All documents incorporated by reference in this
14 chapter are available at the Minnesota State Law Library.

15 [For text of item B, see M.R.]

16 REPEALER. Minnesota Rules, part 7640.0120, subpart 26, is
17 repealed.