

CHAPTER 7640
DEPARTMENT OF PUBLIC SERVICE
ENERGY DIVISION
THERMAL INSULATION STANDARDS

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7640.0110 APPLICABILITY.

Subpart 1. **Types of residential insulation products covered.** This chapter applies to insulation products for use in residential buildings. These include insulation for walls, ceilings, floors, foundation walls, pipe insulation, duct insulation, and retrofit water heater blanket insulation.

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

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

Statutory Authority: *MS s 325F.20; 325F.21*

History: *16 SR 2026*

7640.0120 DEFINITIONS.

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

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

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

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

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

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

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

Subp. 26. [Repealed, 16 SR 2026]

Statutory Authority: *MS s 325F.20; 325F.21*

History: *16 SR 2026*

7640.0130 INSULATION MATERIALS STANDARDS.

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

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

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

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

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

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

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

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

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

Subp. 3. Cellulose insulation.

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

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

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

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

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

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

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

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

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

Statutory Authority: *MS s 325F.20; 325F.21*

History: *16 SR 2026*

7640.0160 APPLICATION AND INSTALLATION STANDARDS.

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

Subp. 2. Application and inspection.

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

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

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

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

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

Statutory Authority: *MS s 325F.20; 325F.21*

History: *16 SR 2026*

7640.0180 INCORPORATIONS BY REFERENCE AND CITATIONS.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Statutory Authority: *MS s 325F.20; 325F.21*

History: *16 SR 2026*