



Preface

Expanded Polystyrene Insulation Board and Pipe Covering

Scope

This Evaluation Listing applies to factory-made, rigid, expanded polystyrene insulation in the form of boards and pipe covering with or without facings or coatings made by molding (EPS) or extrusion (XPS) of expandable polystyrene beads. It is intended for use as thermal insulation in building construction and other applications in temperatures within the range of -54°C to +75°C.

Products covered by one of the standards listed below are also used for sound insulation and in prefabricated thermal insulation systems and composite panels. The performance of systems incorporating these products is not covered.

The proponent has demonstrated that the product meets at least one of the following standards:

- CAN/ULC-S701-01, "Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering"
- CAN/ULC-S701-05, "Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering"

Products meeting the above standards are classified as Type 1, 2, 3 or 4.

Note:

The moulded/expanded polystyrene (EPS) insulation industry subscribes to an accredited certification program as part of their quality assurance. The listings for EPS, published in the Registry, are based on the participation of one of the certification organizations accredited by the Standards Council of Canada (SCC).

Standard

Table 1. CAN/ULC-S701-01 and CAN/ULC-S701-05 Material Properties

Properties	Unit	Requirements			
		Type 1	Type 2	Type 3	Type 4
Thermal resistance of a 25-mm-thick specimen	m ² ·°C/W	≥ 0.65	≥ 0.70	≥ 0.74	≥ 0.86
Long-term thermal resistance		(1)			

Water vapour permeance for a 25-mm-thick specimen	ng/(Pa·s·m ²)	≤ 300	≤ 200	≤ 130	≤ 60
Dimensional stability	% linear change	≤ 1.5	≤ 1.5	≤ 1.5	≤ 1.5
Flexural strength	kPa	≥ 170	≥ 240	≥ 300	≥ 350
Water absorption	% by volume	≤ 6.0	≤ 4.0	≤ 2.0	≤ 0.7
Compressive strength	kPa	≥ 70	≥ 110	≥ 140	≥ 210
Limiting oxygen index	%	≥ 24	≥ 24	≥ 24	≥ 24

Notes to Table 1:

(1) CAN/ULC-S701-01 requires that the results of the tested products be reported. The long-term thermal resistance value shall also be reported for the 25-mm-, 50-mm- and 75-mm-thick products.

CAN/ULC-S701-05 requires a minimum value of 1.73 m²·°C/W for a 50-mm-thick product. The long-term thermal resistance value shall also be reported for the 25-mm- and 75-mm-thick products.

Labelling

In compliance with the CAN/ULC-S701-05 standard, the product shall be marked with the following information:

- Type number;
- ULC standard number; and
- Manufacturer's name or trademark.

The product shall also be marked with a warning:

“Caution: This product is combustible. A protective barrier or thermal barrier is required as specified in the appropriate building code.”

National Building Code of Canada (NBC)

NBC References

The NBC 2005 references CAN/ULC-S701-05 in Sentence 9.15.4.1.(1), Tables 5.10.1.1. and 9.23.16.2.A. and Sentence 9.25.2.2.(1).



Evaluation Listing CCMC 13521-L

MASTERFORMAT: 07 21 13.06
Issued: 2010-07-14
Re-evaluation due: 2013-07-14

Poly Pro

1. Evaluation

Conforms to CAN/ULC-S701-05, Type 1. The evaluation of this product is based solely on its certification and listing by Intertek Testing Services NA Ltd.

2. Description

A Type 1, moulded/expanded polystyrene (EPS) rigid board thermal insulation.

3. Standard and Regulatory Information

See the Preface and the standard for explanation.

Listing Holder: AMC Foam Technologies Inc.
151 Paramount Rd.
Winnipeg, MB R2X 2W6
Tel: 204-633-8800
Fax: 204-633-2000

Plant(s): Winnipeg, MB

This Listing is issued by the Canadian Construction Materials Centre, a program of the Institute for Research in Construction at the National Research Council of Canada. The Listing must be read in the context of the entire CCMC Registry of Product Evaluations.

Readers must confirm that the Listing is current and has not been withdrawn or superseded by a later issue. Please refer to <http://www.nrc-cnrc.gc.ca/eng/services/irc/ccmc.html>, or contact the Canadian Construction Materials Centre, Institute for Research in Construction, National Research Council of Canada, 1200 Montreal Road, Ottawa, Ontario, K1A 0R6. Telephone (613) 993-6189. Fax (613) 952-0268.

NRC has evaluated the material, product, system or service described herein only for those characteristics stated herein. The information and opinions in this Listing are directed to those who have the appropriate degree of experience to use and apply its contents. This Listing is provided without representation, warranty, or guarantee of any kind, expressed, or implied, and the National Research Council of Canada (NRC) provides no endorsement for any evaluated material, product, system or service described herein. NRC accepts no responsibility whatsoever arising in any way from any and all use and reliance on the information contained in this Listing. NRC is not undertaking to render professional or other services on behalf of any person or entity nor to perform any duty owed by any person or entity to another person or entity.