Preface

Cellulose Fibre Insulation (CFI)

Scope

These Evaluation Listings apply to treated, wood-based, cellulose fibre intended for use as thermal insulation (cellulose fibre insulation, CFI) in new and existing buildings. The continuous use temperature range is within –60°C to 90°C. The proponent has demonstrated that the product meets at least one of the following standards:

- CAN/ULC-S703-01, "Standard for Cellulose Fibre Insulation (CFI) for Buildings;"
- CAN/ULC-S703-01, (including Amendment 1) "Standard for Cellulose Fibre Insulation (CFI) for Buildings."

The standard classifies the product as either Type 1 or Type 2. Type 1 CFI is a loose-fill product intended for pneumatic application in open areas, with slopes up to 4.5-in-12, or injection application into closed cavities. Type 1 may also be manually applied (hand-poured). Type 2 CFI is intended to be pneumatically spray-applied with water (maximum of 20% water added) in open areas or into open cavities (regardless of slope) that will eventually be closed.

Standard(s)

Table 1. Performance Requirements for Physical Properties of CFI (Type 1 and Type 2)

Property	Unit	Requirement
Thermal resistivity	m·K/W	Minimum 18.5
Open flammability	W/cm^2	Minimum 0.12
Open flammability permanency	W/cm^2	Minimum 0.12
Surface burning characteristics	FSI	Maximum 150 (Type 1) Maximum 25 (Type 2)
Smoulder resistance	%	Maximum 15
Moisture vapour sorption	%	Maximum 20

Table 1. Performance Requirements for Physical Properties of CFI (Type 1 and Type 2) (cont'd)

Property	Unit	Requirement
Corrosiveness	–	No perforations. Mass loss of truss plates shall not exceed that of control by more than 25% in 1 of 3 specimens
Fungi resistance	–	Fungal growth shall not exceed that of the comparative item
Separation of chemicals	%	Maximum 1.5
Design density	kg/m^3	As determined

Table 2. Additional Requirements for Type 2 Product

Property	Unit	Requirement
Added water	%	Maximum 20
Settlement – open spaces	%	Minimum 5

Labelling

The standard requires that each bag of insulation be identified with the following information:

- manufacturer's name and address;
- trade name of the product;
- generic product name;
- material type (i.e. Type 1 and/or Type 2);
- package weight;
- standard number CAN/ULC-S703;
- day/month/year of manufacture or traceable code number;
- coverage chart(s) providing the information described in Subsection 7.3 of the standard; and
- a cautionary note as follows:

  "CAUTION: Maintain building, electrical, gas and oil safety code required clearances between the insulation and heat-emitting devices, such as fuel-burning appliances, chimney pipes, ducts and vents to these appliances (at least 50 mm) and recessed light fixtures (at least 75 mm) unless approved for insulation contact."

National Building Code of Canada (NBC)

NBC References

The CAN/ULC-S703-01 standard is referenced in Division B of the NBC 2005, Clause 9.25.2.2.(1)(e) and Table 5.10.1.1.

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Weathershield Cellulose Insulation/Global Insulation

1. Evaluation

The product conforms to CAN/ULC-S703-01. The tested thermal resistance value is 25.6 $m^2 \cdot KW^{-1}$ per metre thickness at a design density of 24.83 kg/m^3.

This product shall be installed as outlined in the Preface and according to the following coverage chart:

RSI Value ($m^2 \cdot K/W$)	Minimum Applied Thickness (mm)	Minimum Settled Thickness (mm)	Mass Per Unit Area (kg/m^2)	Coverage per 11.5-kg Bag (m^2)
2.1	92	82	2.04	5.65
3.5	153	137	3.40	3.38
4.9	215	192	4.77	2.41
5.3	232	207	5.14	2.24
5.6	245	219	5.44	2.11
6.0	263	235	5.84	1.97
7.0	306	274	6.80	1.69
7.7	337	301	7.71	1.49
8.8	385	344	9.09	1.27
10.6	464	414	11.27	1.02

2. Description

The product is a Type 1 cellulose-fibre thermal building insulation manufactured from clean paper and treated with chemicals. The paper is at least 95% used, unused, or a combination of both, newsprint feedstock with a permissible maximum of 5% of paper obtained from telephone directories, paper books and glossy paper (glossy paper does not exceed 1%).

3. Standard and Regulatory Information

See the Preface and the standard for explanation.

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Plant(s): Edmonton, AB

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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.