

Evaluation Listing CCMC 09218-L Weathershield Cellulose Insulation/Global Insulation

 Evaluation Issued:
 1982-09-20

 Re-evaluated:
 2015-05-27

 Re-evaluation due:
 2017-06-01

Preface: Masterformat 07 21 23.01, Cellulose Fibre Insulation (CFI) For Buildings

Preface Issued: 2011-04-05

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 (including Amendment 1), "Standard for Cellulose Fibre Insulation (CFI) for Buildings"
- CAN/ULC-S703-09, "Standard for Cellulose Fibre Insulation (CFI) for Buildings"

The standard describes two types of CFI. They are defined in CAN/ULC-S703-09 as follows:

- Type 1 is intended for pneumatic application into open areas with slopes up to 4.5:12, or injection application into closed cavities, such as walls, floors, and cathedral ceilings. Type 1 may also be manually applied (poured application).
- Type 2 is intended for spray application with water or liquid adhesive into open areas regardless of slope (e.g., attics), exposed surfaces (e.g., walls or ceilings) and/or into any open cavity (e.g., wall, floor, or ceiling cavities) that may be closed later. This product may also contain internal binders to increase the adhesive/cohesive capabilities of the sprayed fibres in order to reduce settlement and/or ensure it remains in place.

Standard (2001 and 2009 Versions)

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 ¹	FSI	Maximum 150 (Type 1) Maximum 25 (Type 2)		
Smoulder resistance	%	Maximum 15		
Moisture vapour sorption	%	Maximum 20		
Corrosiveness		No perforations		
Fungi resistance	-	Fungal growth must 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 ¹	%	Maximum 20	
Design moisture ²	%	6 Maximum 20	
Settlement – open spaces	%	Minimum 5	
Cohesion/adhesion exposed surfaces ²	-	Minimum 5 times the mass of the material under the test plate	

Notes to Tables 1 and 2:

- <u>1</u> Requirement in CAN/ULC-S703-01 version only.
- 2 Requirement in CAN/ULC-S703-09 version only.

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 and sub-type (i.e., Type 1 (open spaces) and/or Type 2 (closed cavities));
- · package mass;
- standard number CAN/ULC-S703;
- day/month/year of manufacture or traceable code number;
- coverage table(s) providing the information described in the appropriate Subsection 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

CAN/ULC-S703-01 is referenced in Clause 9.25.2.2.(1)(e) and Table 5.10.1.1. of Division B of the NBC 2010.

CAN/ULC-S703-09 is not referenced in the NBC 2010.

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1. Evaluation

The product conforms to CAN/ULC-S703-09. The tested thermal resistance value is $25.4 \text{ m}^2 \cdot \text{KW}^{-1}$ per metre thickness at a design density of 25 kg/m^3 .

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

RSI Value (m²·K/W)	Minimum Applied Thickness (mm)	Minimum Settled Thickness (mm)	Mass Per Unit Area (kg/m²)	Coverage per 11.5-kg Bag (m²)
2.1	93	83	2.07	5.56
3.5	154	138	3.45	3.34
4.9	216	193	4.83	2.38
5.3	234	209	5.22	2.20
5.6	247	221	5.51	2.09
6.0	265	236	5.91	1.95
7.0	309	276	6.89	1.67
7.7	340	303	7.83	1.47
8.8	388	347	9.22	1.25
10.6	468	418	11.44	1.01

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. The glossy paper content does not exceed 1%.

3. Standard and Regulatory Information

See the <u>Preface</u> and the standard for explanation.

Listing Holder

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