



Cellulose Fibre Insulation (CFI) For Buildings [Annex]

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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	$\text{m}\cdot\text{K}/\text{W}$	Minimum 18.5
Open flammability	W/cm^2	Minimum 0.12
Open flammability permanency	W/cm^2	Minimum 0.12
Surface burning characteristics¹	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	%	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:

1 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 not referenced in the NBC 2010.

CAN/ULC-S703-09 is referenced in Sentence 9.25.2.2.(1) and Table 5.10.1.1. of Division B of the NBC 2010.