Evaluation Listing CCMC 08774-L
Therm-O-Light (Type 1)

Evaluation Issued: 1984-12-06
Re-evaluated: 2013-06-05
Re-evaluation due: 2016-07-10

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 (eg. attics), exposed surfaces (eg. walls or ceilings) and/or into any open cavity (eg. 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

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

Property	Unit	Requirement
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[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 & 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

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

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

Evaluation Listing CCMC 08774-L: Therm-O-Light (Type 1)

Evaluation Issued:	1984-12-06
Re-evaluated:	2013-06-05
Re-evaluation due:	2016-07-10

1. Evaluation

The product conforms to CAN/ULC-S703-01 and CAN/ULC-S703-09. The insulation coverage per bag is referenced in the following application charts:

Table 1

Open Spaces (Design Density 24.8 kg/m^3)						
RSI Value ($(m^2 \cdot K)/W$)	**Minimum Applied Thickness (mm)**	**Minimum Settled Thickness (mm)**	**Mass per Unit Area (kg/m^2)**	**Coverage per 13.6-kg Bag (m^2)**	**Coverage per 15.0-kg Bag (m^2)**	**Coverage per 15.9-kg Bag (m^2)**
2.1	92	82	2.0	6.7	7.4	7.8
3.5	153	136	3.4	4.0	4.4	4.7
4.9	213	190	4.7	2.9	3.2	3.4
5.6	243	217	5.4	2.5	2.8	2.9
7.0	304	271	6.7	2.0	2.2	2.4
8.8	381	341	8.4	1.6	1.8	1.9

Table 2

Closed Cavities (Design Density 48.0 kg/m^3)					
RSI Value ($(m^2 \cdot K)/W$)	**Minimum Applied Thickness (mm)**	**Mass per Unit Area (kg/m^2)**	**Coverage per 13.6-kg Bag (m^2)**	**Coverage per 15.0-kg Bag (m^2)**	**Coverage per 15.9-kg Bag (m^2)**
2.4	89	4.3	3.2	3.5	3.7
3.0	114	5.5	2.5	2.7	2.9
3.7	140	6.7	2.0	2.2	2.4
4.0	152	7.3	1.9	2.1	2.2
4.9	184	8.8	1.5	1.7	1.8
6.3	235	11.3	1.2	1.3	1.4

Notes to Tables 1 and 2: Coverage values contain no allowance for openings, framing type, size or spacing. For further information, please consult the manufacturer.

2. Description

The product is a Type 1, cellulose fibre, thermal building insulation made from paper or paperboard stock and modified with chemical additives.

3. Standard and Regulatory Information

See the Preface and the standard for explanation.

Listing Holder

Therm-O-Comfort Company Limited
75 South Edgeware Road
St-Thomas, ON N5P 2H7

Telephone: 519-631-3400
Fax: 519-631-9533

Plant(s)

St-Thomas, ON

Disclaimer

This Listing is issued by the Canadian Construction Materials Centre, a program of NRC 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/solutions/advisory/ccmc_index.html, or contact the Canadian Construction Materials Centre, NRC 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.

Date modified:
2013-06-20