

WALLTITE® XL Long Term Thermal Resistance Values Reference Guide

The Long Term Thermal Resistance (LTTR) data presented in this table has been derived from testing conducted and reported in CCMC 14077-R, and to the requirements of:

CAN/ULC-S770-09, Standard Test Method for Determination of Long Term Thermal Resistance of Closed-Cell Thermal Insulating Foams.

Standard CAN/ULC-S770 is referenced in standard CAN/ULC- S705.1 under subsection 5.5.6.

Standard CAN/ULC-S770-09 is referenced in the 2015 National Building Code of Canada in the explanatory note A-9.36.2.4.(1) (see Table A- 9.36.2.4.(1)-D) and states:

“This LTTR value shall be input as the design thermal resistance value for the purpose of energy calculations,”

The product is installed at a maximum nominal thickness of 125 mm in one pass and a minimum nominal thickness of 50 mm. For thickness greater than 125 mm, additional passes are required.

LTTR measurements were conducted by Exova Canada Inc. of Mississauga (ON), an independent laboratory, and are recorded in report no. 16-06-P0141.

Additional information on the aging process of foam thermal insulations and the design thermal resistance of polyurethane foams is found in Use of Field-Applied Polyurethane Foams in Buildings, Construction Technology Update No. 32, IRC-NRC, M.T. Bomberg, M.K. Kumaran (December 1999)

Thermal Resistance		Thickness	
R-Value (ft ² ·hr·°F/Btu)	RSI (m ² ·°C/W)	(inches)	(mm)
12	2.11	2.0	51
13	2.29	2.2	56
14	2.47	2.4	60
15	2.64	2.5	64
16	2.82	2.7	69
17	2.99	2.9	73
18	3.17	3.0	76
19	3.35	3.2	81
20	3.52	3.3	85
21	3.70	3.5	89
22	3.87	3.7	93
23	4.05	3.8	97
24	4.22	3.9	100
25	4.40	4.1	104
26	4.58	4.3	109
27	4.76	4.4	113
28	4.93	4.6	117
29	5.11	4.7	119
30	5.28	4.8	123
31	5.46	5.0	127
32	5.64	5.2	131
33	5.81	5.3	135
34	5.99	5.5	139
35	6.16	5.6	143
36	6.34	5.8	147
37	6.52	5.9	151
38	6.69	6.1	155
39	6.87	6.3	159
40	7.04	6.4	163
41	7.22	6.6	167
42	7.40	6.7	171
43	7.57	6.9	175
44	7.75	7.1	179
45	7.93	7.2	184
46	8.10	7.4	187
47	8.28	7.5	192
48	8.45	7.7	196
49	8.62	7.9	199
50	8.81	8.0	204

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