

WALLTITE® CM01
Long Term Thermal Resistance Values
Reference Guide

The Long Term Thermal Resistance (LTTR) data presented in this table has been derived from testing conducted according to the requirements of standards:

CAN/ULC-S705.1-15, Standard for Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density – Material Specification and
 CAN/ULC-S770-09, Standard Test Method for Determination of Long Term Thermal Resistance of Closed-Cell Thermal Insulating Foams. Standard CAN/ULC-S770-09 is referenced in standard CAN/ULC-S705.1-15 under subsection 2.1.
 Furthermore, clause 5.5.8.2 of CAN/ULC-S705.1-15 stipulates the following “The thermal resistance value measured shall be the design thermal resistance value values.”
 Standard CAN/ULC-S705.1-15 is referenced in the second printing of the 2015 National Building Code of Canada under the following items:
 Section 1.3 Referenced Documents and Organizations Sentence 1.3.1.2.(1) Applicable Editions (see Table 1.3.1.2.S)
 Section 5.10 Standards: Sentence 5.10.1.1.(1) Compliance with Applicable Standards (see Table 5.10.1.1)
 Section 9.25 Heat Transfer, Air Leakage and Condensation Control. Subsection 9.25.2 Thermal Insulation Article 9.25.2.2 Insulation Materials (CAN/ULC S705.1)
 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)
 LTTR measurements were conducted by Exova Canada Inc. of Mississauga (ON), an independent laboratory, and are recorded in report no. 17-06-P0045B

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)
6	1.06	1.2	30
7	1.23	1.4	35
8	1.41	1.6	40
9	1.59	1.7	45
10	1.76	1.9	48
11	1.94	2.1	53
12	2.11	2.3	58
13	2.29	2.5	63
14	2.47	2.7	68
15	2.68	2.9	73
16	2.82	3.0	75
17	2.99	3.1	79
18	3.17	3.3	84
19	3.35	3.5	89
20	3.52	3.7	93
21	3.70	3.9	98
22	3.87	4.0	101
23	4.05	4.2	105
24	4.23	4.3	110
25	4.40	4.5	115
26	4.58	4.7	119
27	4.76	4.9	124
28	4.93	5.0	128
29	5.11	5.2	133
30	5.28	5.4	138
31	5.46	5.6	142
32	5.64	5.8	147
33	5.81	5.9	151

Thermal Resistance		Thickness	
R-Value (ft ² -hr-°F/Btu)	RSI (m ² -°C/W)	(inches)	(mm)
34	5.99	6.1	156
35	6.16	6.3	160
36	6.34	6.5	165
37	6.52	6.7	170
38	6.69	6.9	174
39	6.87	7.0	179
40	7.04	7.2	183
41	7.22	7.4	188
42	7.40	7.6	193
43	7.57	7.8	197
44	7.75	8.0	202
45	7.93	8.1	206
46	8.10	8.3	211
47	8.28	8.5	216
48	8.45	8.7	220
49	8.63	8.9	225
50	8.81	9.0	229
51	8.98	9.2	234
52	9.16	9.4	238
53	9.33	9.6	243
54	9.51	9.8	248
55	9.69	9.9	252
56	9.86	10.1	257
57	10.04	10.3	261
58	10.21	10.5	266
59	10.39	10.7	271
60	10.57	10.8	275

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