



Building Insulation Compressed R-value Chart

Technical Bulletin

When compressed to less than its' labeled thickness, glass fiber insulation will experience a reduction in R-value. The chart below indicates the compressed R-value of standard building insulation products when installed in framing cavities with a depth that is less than the labeled thickness of the insulation.

Nominal Lumber Size	Cavity Depth ¹	Insulation R-Values When Compressed In Framing Cavity ²													
		R-49	R-38	R-38C	R-30	R-30C	R-25	R-22	R-21	R-20	R-19	R-15	R-13	R-11	R-8
1 joist	14"	49													
1 joist	11-7/8"	44	38												
2 x 12	11-1/4"	42	37												
1 joist	9-1/2"	38	33												
2 x 10	9-1/4"	37	32	35	30										
2 x 8	7-1/4"		27	29	25	27	24								
2 x 6 ³	6"				22	24	21	21							
2 x 6	5-1/2"				21	22	20	19	21	20	18				
2 x 4 ³	4"						16	15	16	16	14				
2 x 4 ³	3-5/8"						15	14	15	15	13				
2 x 4	3-1/2"						14	14	15	14	13	15	13	11	
2 x 3	2-1/2"										10	11	10	8.9	8.0
2 x 2 ³	1-5/8"												7.1	6.5	6.1
2 x 2	1-1/2"												6.6	6.1	5.7
2 x 1	3/4"														3.3
Product R-Value		R-49	R-38	R-38C	R-30	R-30C	R-25	R-22	R-21	R-20	R-19	R-15	R-13	R-11	R-8
Label Thickness		14"	12"	10-1/4"	9-1/2"	8-1/4"	8"	6-3/4"	5-1/2"	5-1/2"	6-1/4"	3-1/2"	3-1/2"	3-1/2"	2-1/2"

- Notes:
1. Minimum dressed lumber thickness per U. S. Dept. of Commerce / NIST publication PS 20-10.
 2. Above listing for information only; some products will resist compression into framing cavities and deform sheathing.
 3. Metal framing.

Please contact 419-248-6557 for additional information. Email: gettech@owenscorning.com

Disclaimer of Liability

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. Because conditions of use may vary and are beyond our control, Owens Corning makes no representation about, and is not responsible or liable for the accuracy or reliability of data associated with particular uses of any product described herein.



OWENS CORNING INSULATING SYSTEMS, LLC
 ONE OWENS CORNING PARKWAY
 TOLEDO, OHIO 43659
1-800-GET-PINK®
www.owenscorning.com

Pub. No. 10017857-A. Printed in U.S.A. April 2015. THE PINK PANTHER™ & ©1964-2015 Metro-Goldwyn-Mayer Studios Inc. All Rights Reserved. The color PINK is a registered trademark of Owens Corning. ©2015 Owens Corning. All Rights Reserved.

