



Technical Bulletin

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Revised LTTR Values For Polyisocyanurate Roof insulation (Long Term Thermal Resistance)

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On January 1, 2014 a new test method for predicting Long Term Thermal R (LTTR) values for Polyisocyanurate roofing products will go into effect. The net effect is that the published LTTR values for polyiso roof insulation will be decreased. All other physical properties will remain the same. The new test method is an attempt to predict the R value of polyiso after 15 years of use.

Q: What is the effective date of the changes?

A: The new test method goes into effect January 1, 2014.

Q: Will any other physical properties change?

A: No. This is merely a different method of determining the LTTR of the product.

Q: Will all Polyiso products and manufacturers be affected?

A: This change will affect all polyiso material and all manufacturers who are members of PIMA.

Q: Does this mean that all Polyiso LTTR values will decrease?

A: Yes, based on the new test method, LTTR values will go down.

Q: How do I price a project that will ship in 2014?

A: If the quote is based on R value then the new LTTR values should be used. Note that the NRCA recommends that designers specify Polyiso by thickness. If the quote is based on thickness then no change is needed.

Q: What if I have already quoted a project for 2014?

A: You should ask to be re-quoted if the quote was based on R value.

Q: How will this affect tapered polyiso insulation?

A: These R values will also decrease beginning in 2014.

Q: What if I have a project that shipped in 2013 and now needs additional material?

A: You should clarify with the designer whether or not they wish to have the new material quoted based on the 2014 LTTR values. Keep in mind that the thickness will change.

Q: What do I do with existing inventory?

A: Inventory purchased prior to January 1, 2014 can be sold with the 2013 R-Values displayed. For instance, if you have bundles of 1.5" ISO with a 2013 label, they can be sold as meeting the 2014 LTTR of 8.5 for 1.5" ISO.

Q: How do the new R Values compare to the present ones?

A: Please see R value comparison on next page.

Nominal Thickness*** (Inches)	Poly ISO 1			Metal Deck Max. Flute Spanability (Inches)
	(mm)	2013 LTTR*	2014 LTTR**	
1.0	25	6.0	5.6	2 ⁵ / ₈
1.5	38	9.0	8.5	4 ³ / ₈
1.6	41	9.6	9.1	4 ³ / ₈
1.7	43	10.3	9.6	4 ³ / ₈
2.0	51	12.1	11.4	4 ³ / ₈
2.5	64	15.3	14.4	4 ³ / ₈
2.7	69	16.6	15.6	4 ³ / ₈
3.0	76	18.5	17.4	4 ³ / ₈
3.3	84	20.4	19.2	4 ³ / ₈
3.5	89	21.7	20.5	4 ³ / ₈
3.6	91	22.4	21.1	4 ³ / ₈
4.0	102	25.0	23.6	4 ³ / ₈

*Long Term Thermal Resistance Values are based on ASTM C1289 and CAN/ULC S770 which provides for a 15-year time weighted average.
 **LTTR (Long Term Thermal Resistance) determined in accordance with *updated* 2014 ASTM C1289 Standard.
 ***Other thicknesses available upon special request.

Nominal Thickness*** (Inches)	Poly ISO 2™			Metal Deck Max. Flute Spanability (Inches)
	(mm)	2013 LTTR*	2014 LTTR**	
1.0	25.4	6.0	5.6	2 ⁵ / ₈
1.5	38.1	9.0	8.5	4 ³ / ₈
2.0	50.8	12.1	11.4	4 ³ / ₈
2.5	63.5	15.3	14.4	4 ³ / ₈
3.0	76.2	18.5	17.4	4 ³ / ₈
3.1	78.8	19.1	18.0	4 ³ / ₈
3.3	83.8	20.4	19.2	4 ³ / ₈
4.0	101.6	25.0	23.6	4 ³ / ₈

*LTTR (Long Term Thermal Resistance) values were determined in accordance with CAN/ULC-S770 and ASTM C1289, Annex A1. All test samples were third-party selected and tested by an accredited material testing laboratory. The LTTR results were reviewed and authorized by FM Approvals and certified by the PIMA Quality Mark Program.
 **LTTR (Long Term Thermal Resistance) determined in accordance with *updated* 2014 ASTM C1289 Standard.
 ***Other thicknesses available upon special request.

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