

**To: GENFLEX ROOFING SYSTEMS CUSTOMERS**  
**RE: NEW LTTR VALUES FOR GENFLEX POLYISO ROOF INSULATIONS**

**AUGUST 30, 2013**

Starting January 1<sup>st</sup>, 2014:

- GenFlex Roofing Systems will continue to participate in the Polyisocyanurate Insulation Manufacturers Association (PIMA) QualityMark<sup>cm</sup> Certification Program
- GenFlex Roofing Systems will offer the same Polyiso Insulation
- Only Polyiso R-values are changing
- They are changing to meet the new ASTM C1289-13e1 testing methods

Again, due to advances in testing methodology which more accurately predict thermal performance over time, LTTR values are changing. This change in R-value will be applied to GenFlex commercial roofing insulation products produced at its seven manufacturing locations.

Thickness		LTTR* (R-Value)	Thermal Properties Max Flute Span		Total Recycled Content	Pieces Per Bundle
in	mm	ft <sup>2</sup> h° F/Btu in	in	mm	%	#
1.00	25.40	<b>5.6</b>	2.625	66.675	52	48
1.25	31.75	<b>7.0</b>	3.675	93.345	48	38
1.50	38.10	<b>8.5</b>	4.375	111.125	44	32
1.75	44.45	<b>9.9</b>	4.375	111.125	41	27
2.00	50.80	<b>11.4</b>	4.375	111.125	39	24
2.30	58.42	<b>13.2</b>	4.375	111.125	36	20
2.50	63.50	<b>14.4</b>	4.375	111.125	35	19
2.80	71.12	<b>16.2</b>	4.375	111.125	33	17
3.00	76.20	<b>17.4</b>	4.375	111.125	32	16
3.25	82.55	<b>18.9</b>	4.375	111.125	31	14
3.50	88.90	<b>20.5</b>	4.375	111.125	30	13
3.75	95.25	<b>22.0</b>	4.375	111.125	29	12
4.00	101.60	<b>23.6</b>	4.500	114.300	29	12
<b>*Long Term Thermal Resistance (LTTR) in accordance with ASTM C1289-13e1, effective 1/1/14</b>						
Sheets: 4' x 8' (1.22 m x 2.44 m) and 4' x 4' (1.22 m x 1.22 m)						

All GenFlex Roofing Systems reported values will be certified through the Polyisocyanurate Insulation Manufacturers Association (PIMA) QualityMark Certification Program. This is a voluntary program that allows polyiso manufactures to obtain independent, third-party certification for the Long Term Thermal Resistance (LTTR) values of their polyiso roof insulation products. Polyiso is the only roof insulation to be certified by this unique program for its LTTR value. The program was developed by PIMA and is administered by FM Global. GenFlex Roofing Systems will retain all FM and UL approvals.

This change is being made in order to provide a comprehensive approach resulting in increased reliability and consistency in the prediction of long-term thermal performance of North America's most popular rigid roof insulation. The results of this effort will provide increased value to the specifiers and purchasers of this important insulation material.

ASTM C1289-13e1 now incorporates two test methods, ASTM C1303-11 and CAN/ULC-S770-09, which offer a similar approach to predicting the long term thermal performance for foam insulation materials that exhibit air and blowing agent diffusion or aging over time. Both test methods employ a technique called “slicing and scaling” to accelerate this aging process and provide an accurate and consistent prediction of product R-value after 5 years, which is equivalent to a time-weighted thermal design R-value for 15 years. Based on extensive research over the past five years, including bias and ruggedness testing, most thermal insulation researchers now agree that the results of both ASTM C1303 and CAN/ULC-S770 provide similar and consistent results predictive of actual aged performance.

We recommend that architects and consultants include ASTM C 1289-13e1 in their specifications and that contractors include the thicknesses and LTTR values of the polyiso roof insulation in all their projects.

Sincerely,



Tyler Cooper  
Insulation Product Manager