

Technical Bulletin #18:

High-R Fiberglass Insulation System for Metal Walls

Filled Cavity Single and Double Layer Systems have been developed to provide exceptional thermal performance in typical metal building wall assemblies.

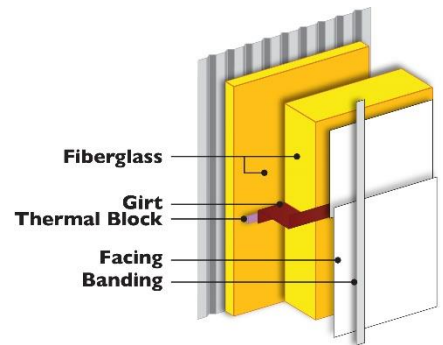
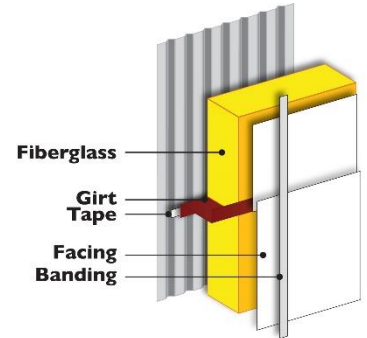
The benefits of these Filled Cavity Wall Systems are:

- High-R / Low U-Values which meet most new energy standards
- Nonproprietary installation system
- Attractive installed appearance
- Easy installation of electrical, HVAC, and sprinkler systems
- Economical

U-Values as low as 0.035 can be achieved when utilizing double layer fiberglass installation techniques.

Thermal testing has been conducted at the Butler Manufacturing Research Center located in Grandview, MO, an independent certified laboratory.

A summary of the test results is as follows:



System	Thermal Transmittance, U:	Overall Thermal Resistance, Ru:	Report Number Click for PDF:
R-25 FG with 1/8" Foam Thermal Tape:	0.059 Btu/hr.ft ² F	17.1 hr.ft ² F/Btu	2011-33
R-30 FG with 1/8" Foam Thermal Tape:	0.052 Btu/hr.ft ² F	19.2 hr.ft ² F/Btu	2011-34
R-25 FG/ R-16 FG with 1/8" Foam Thermal Tape in 8" Girts:	0.039 Btu/hr.ft ² F	25.3 hr.ft ² F/Btu	2011-60
R-25 FG/ R-13 FG with 1" Thermal Block in 8" Girts:*	0.038 Btu/hr.ft ² F	26.5 hr.ft ² F/Btu	2011-61
R-25 FG/ R-16 FG with 1/8" Foam Thermal Tape in 10" Girts:	0.036 Btu/hr.ft ² F	27.5 hr.ft ² F/Btu	2011-35
R-25 FG/ R-13 FG with 1" Thermal Block in 10" Girts:*	0.035 Btu/hr.ft ² F	28.8 hr.ft ² F/Btu	2011-36

* Building manufacturers should be contacted if systems utilizing 1" thermal blocks are being considered

Testing was conducted in accordance with ASTM C1363, "Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus"