

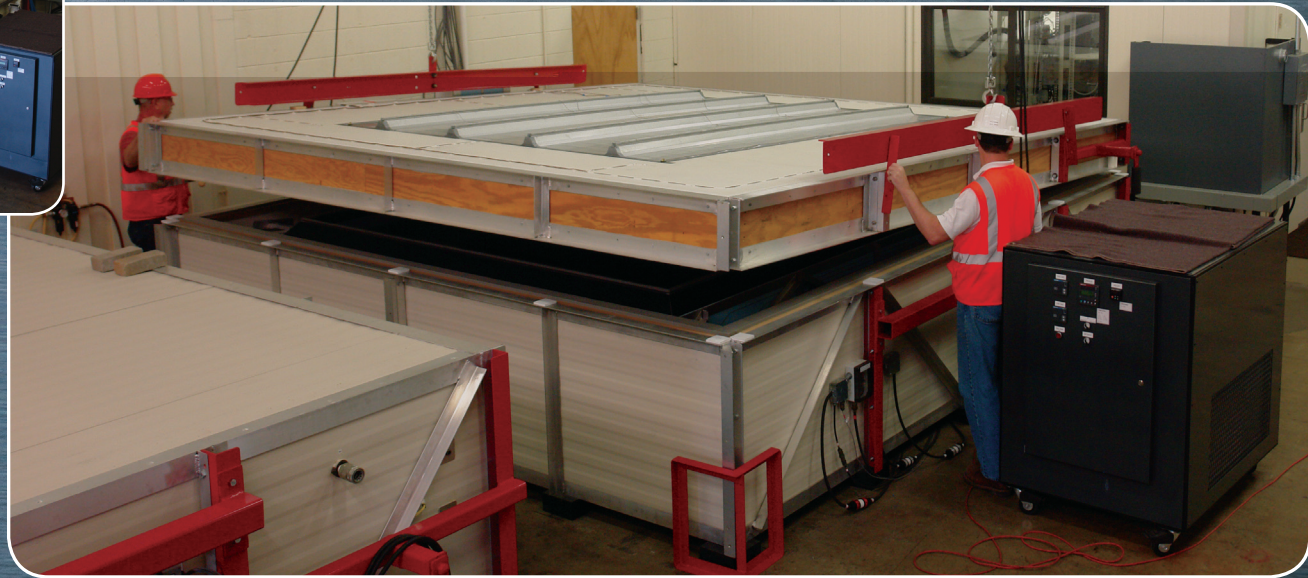
BUTLER QUICK REFERENCE GUIDE

GUARDED HOT BOX



Actual 8' x 10' roof and wall assemblies are tested in the Butler® Guarded Hot Box to provide accurate insulating information, rather than theoretical data provided by most building product manufacturers. That means Butler® building systems deliver the energy efficiency they promise.

Knowing the actual thermal performance of the building envelope assures compliance to energy codes. Your Butler Builder® can assist you in providing extremely accurate estimates of thermal performance for Butler building systems.



A state-of-the-art computerized data acquisition system collects information from up to 300 sensors used to measure the temperatures, humidity, airflow, and the total energy consumed during the 3-day test period. The results are expressed as the actual U-factor performance of the assembly.



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Guarded Hot Box Test Results per ASTM C 1363 (updated August 2010)

For complete test reports, details on the construction of each assembly and additional test data go to:
www.mybuildernet.com/forms

ROOF SYSTEM	INSULATION	SPACER BLOCK	ROOF CLIP	BUTLER TEST #	NOMINAL R-VALUE	U-FACTOR BASED ON NOMINAL R	BUTLER U-FACTOR TESTED	PRESCRIBED U-FACTOR, PER IECC 2009	PRESCRIBED U-FACTOR, PER ASHRAE 2010
MR-24®	6" Fiberglass Blanket R-19	Yes	Tall Clip	2009-0002	R-19	0.053	0.064	0.065	0.082
MR-24®	One layer of nominal 3.5" faced fiberglass and one layer of nominal 6" unfaced fiberglass R11 + R19	Yes	X Tall Clip	2009-0004	R-30	0.033	0.047	0.049	0.068
MR-24®	One layer of nominal 3" faced fiberglass and one layer of unfaced 4" fiberglass R10 + R13	Yes	X Tall Clip	2010-21	R-24	0.042	0.053	0.055	0.075
MR-24®	ThermaLiner™ Insulation System – TL9 nominal 6" thick unfaced fiberglass blanket insulation & nominal 3" unfaced fiberglass blanket insulation & MOD-36 Liner Panel R19 + R10	Yes	Tall Clip	2010-15	R-30	0.034	0.033	*	*
Butlerib® II	ThermaLiner™ Insulation System – TL8 nominal 6" thick unfaced fiberglass blanket insulation & nominal 3" unfaced fiberglass blanket insulation & MOD-36 Liner Panel R10+R16	No	No Clip	2010-22	R-26	0.038	0.041	*	*
CMR-24®	2-1/2" + 1-1/2" Layer of Thermax™ metal building board, WMP-VR Polypropylene/Scrim/Kraft, MOD-36 liner panel	No	Standard MR-24 Clip	2010-27	R-26	0.038	0.037	*	*
CMR-24®	2-1/2" of Thermax™ metal building board, WMP-VR Polypropylene/Scrim/Kraft, MOD-36 liner panel	No	Standard MR-24 Clip	2010-30	R-16.25	0.062	0.059	*	*

*U-Factor for this assembly has not been determined by ASHRAE or IECC.



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