



**29 C° Infinite R Energy Sheet**  
**24"x 48" Mats - M100**

101.29R10024048

COMPONENT	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
Film	multilayer white polyfilm	4.4 mil	.1118 mm
Pocket	formed white polyfilm pocket	~13 ct 1.7"x 3.7" x .25" PCM filled pods per Ft <sup>2</sup>	140 ct 44mm x 94mm x 6mm PCM filled pods per M <sup>2</sup>
PCM	Proprietary Blend of Inorganic Phase Change Materials	~1.0 lbs phase change materials per Ft <sup>2</sup>	~4.89 kilograms per sq. meter

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
M-Value	ASTM	100 BTU per sq. ft.	315 W per sq. meter
Melt Point	DSC	84.0° Fahrenheit	29° Celsius
Specific Heat	DSC	1.35 BTU/lb	~3.14 kj/kg
Latent Heat	DSC	~86 btu/lb	~200 j/g
Thermal Conductivity	DSC	~0.16 W/ft/K Liquid ~0.33 W/ft/K Solid	~0.54 W/m/K Liquid ~1.09 W/m/K Solid
Dimensions	Ruler	24.5" x 48"	622mm X 1219mm
Total Unit Thickness	Micrometer	.25"	6mm
Weight	Scale	1.1 lbs per sq. ft.	5.38 kg per sq. meter
Permeability	ASTM E96	0.08 (grains/hr*ft <sup>2</sup> *in Hg)	4.60 ng / N's

FIRE TESTING	ASTM E84	UL 723	ASTM E800 -0
Flame Spread	5	5	passed
Smoke Development	10	10	

POLYFILM PACKAGING			
PHYSICAL PROPERTIES	TEST STANDARD	VALUES (ENGLISH)	VALUES (METRIC)
Caliper	ASTM D 21203	4.4 MIL	11 mm
Yield	Calculated	65050 IN <sup>2</sup> / Lb.	92.36 M/Kg
Puncture Resistance	MIL STD 3010	20 Lbs	9.09 Kg
Tensile Strength	ASTM D 882	28 lbs/IN	1.973 Kg/CM <sup>2</sup>
Breaking Strength	MIL STD 3010	75Lbs/IN (GRAB)	5.285 Kg/CM <sup>2</sup>
Water Vapor Transmission	ASTM F 1249	0.0005 G/100 IN <sup>2</sup> Day	0.0005 G/645 CM <sup>2</sup> Day
Seal Strength	ASTM F 88	18 Lbs/IN	1.268 Kg/CM <sup>2</sup>
Sealing Temp	Manufacturer's Spec	400° F @ 40PSI 1.5 Sec	