

Testing : Resistance To Thermal Transmission Of Materials By The Guarded Heat Flow Meter Technique
Test Method : ASTM E1530-06
Project Number : P20092931
Customer : Wallpanel, Inc.
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Instrument : Anter Unitherm Model 2022
Reference Materials : Vespel Polyimide Thermal Conductivity = 0.37 (W / m-K)
 Pyrex 7740 Glass Thermal Conductivity = 1.14 (W / m-K)
 304 Stainless Steel Thermal Conductivity = 14.7 (W / m-K)
Applied Load : See Below
Test Temperature : 25.0°C
Sample Conditioning : 40+ hours at 23°C ± 2°C / 50% ± 5% RH
Transmission Orientation : Axially through specimen thickness
Significance : ASTM E1530 states that thermal conductivity be reported to two significant figures
Significance : ASTM E1530 states that thermal resistance be reported to nearest whole number x 10⁻⁴ m²·K / W

Sample Name	Sample Thickness (mm)	Upper Surface Temperature (°C)	Lower Surface Temperature (°C)	Heat Sink Temperature (°C)	Mean Sample Temperature (°C)	Thermal Resistance [R] (m ² ·K / W)	Thermal Resistance [R] (ft ² ·F·hr / BTU)	Thermal Conductivity (W / m-K)
WPPS100	.47	40.8	13.3	10.3	27.0	651 x 10 ⁻⁴ 0.0651	0.369	0.07

Applied Load = 40 PSI (0.28 MPa)

$$1 \text{ m}^2 \cdot \text{K} / \text{W} = 5.67446 \text{ ft}^2 \cdot \text{F} \cdot \text{hr} / \text{BTU}$$

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