

Appendix A4: Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus (C518-21)

Thermal Transmission Properties of Aluminum Fluted Panels				
Applicable standard: ASTM C518 – 21				
<i>Element Sample No.: 24-06-P0055</i>				
Description	Results			
	Value	SI Units	Value	Imperial Units
Measured Length	609.00	mm	24.00	in
Measured Width	609.00	mm	24.00	in
Test Thickness	97.03	mm	3.820	in
Measured Mass	12681	g	27.96	lb.
Density	351.69	kg/m ³	21.96	lb./ft ³
Upper Surface Temperature	13.01	°C	55.42	°F
Lower Surface Temperature	35.00	°C	95.00	°F
Temperature Differential	21.99	°C	39.58	°F
Mean Temperature	24.01	°C	75.21	°F
Rate of Heat Flux	109.67	W/m ²	34.76	BTU/h · ft ²
Thermal Conductance	4.99	W/m ² · K	0.88	BTU/h · ft ² · °F
Thermal Resistance	0.20	K · m ² /W	1.14	°F · ft ² · h/BTU
Thermal Conductivity	0.4839	W/m · K	3.3549	BTU · in/h · ft ² · °F
Thermal Resistivity	2.07	K · m/W	0.298	°F · ft ² · h/BTU · in