

# ENGINEERING PROPERTIES SHEET

#	Property	Test	Units	4mm FR Core	3mm LDPE Core	4mm LDPE Core	6mm LDPE Core
1	Thickness	–	mm in	4.0 0.157	3.0 0.118	4.0 0.157	6.0 0.236
2	Weight	–	kg/m <sup>2</sup> lb/ft <sup>2</sup>	7.18 1.47	4.55 0.93	5.47 1.12	7.32 1.5
3	Temperature Range	–	°C °F	-48 to +80 -55 to +175	-48 to +80 -55 to +175	-48 to +80 -55 to +175	-48 to +80 -55 to +175
4	Bond Strength	ASTM D1781	Nm/m in-lb/in	≥100 ≥22.5	≥100 ≥22.5	≥100 ≥22.5	≥100 ≥22.5
5	Coefficient of Expansion	Based on aluminum skins	mm/mm/°C in/in/°F	2.36 x 10 <sup>-5</sup> 1.31 x 10 <sup>-5</sup>	2.36 x 10 <sup>-5</sup> 1.31 x 10 <sup>-5</sup>	2.36 x 10 <sup>-5</sup> 1.31 x 10 <sup>-5</sup>	2.36 x 10 <sup>-5</sup> 1.31 x 10 <sup>-5</sup>
6	Core Density	ASTM D792	kg/m <sup>3</sup> lb/in <sup>3</sup>	1500 5.42 x 10 <sup>-2</sup>	920 3.32 x 10 <sup>-2</sup>	920 3.32 x 10 <sup>-2</sup>	920 3.32 x 10 <sup>-2</sup>
7	Flame Spread Index	ASTM E84	–	Pass = Class A	Pass = Class A	Pass = Class A	Pass = Class A
8	Smoke Developed Index	ASTM E84	–	Pass = Class A	Pass = Class A	Pass = Class A	Pass = Class A
9	Intermediate Scale Multi-Story Test	NFPA 285	–	30 minutes Passed	–	–	–
10	Interior Room Corner Burn	UL 1715	–	15 minutes Passed	–	–	–
11	Fire Test of Building Construction and Materials	ASTM E119	–	1 hr Passed	–	–	–
12	Flatwise Tensile Strength	ASTM C297	Mpa psi	–	–	–	6.17 894
13	Flexural Evaluation	ASTM D7249	Mpa psi	68,115 9.879 x 10 <sup>6</sup>	–	69,685 10.107 x 10 <sup>6</sup>	62,663 9.089 x 10 <sup>6</sup>
14	Metal Skin Specifications	ASTM B 209	–	3000 Series	3000 Series	3000 Series	3000 Series
15	Metal Skin Ultimate Tensile Strength	ASTM E8	MPa ksi	≥159 ≥23	≥159 ≥23	≥159 ≥23	≥159 ≥23
16	Metal skin Yield Strength	ASTM E8	MPa ksi	131 19	131 19	131 19	131 19
17	Metal Skin Thickness	–	mm in	0.5 ± 0.05 Nominal 0.020	0.5 ± 0.05 Nominal 0.020	0.5 ± 0.05 Nominal 0.020	0.5 ± 0.05 Nominal 0.020
18	Metal Skin Finishes	–	–	70% PVDF	70% PVDF	70% PVDF	70% PVDF
19	Core Material Specifications	–	–	Polymer w/fire retardant filler	Polyethylene	Polyethylene	Polyethylene

**Notes:**

- 1 All Testing and Certifications performed by third party accredited testing agencies.
- 2 Test information contained in the above chart is representative of Alucoil North America, LLC FR and PE ACM and is provided for technical evaluation purposes.