

# ENGINEERING PROPERTIES SHEET

#	Property	Test	Units	4mm FR Core	6mm FR Core	3mm LDPE Core	4mm LDPE Core	6mm LDPE Core
1	Thickness	-	mm in	4.0 0.157	6.0 0.236	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	10.20 2.09	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	-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	≥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>	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>	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	Pass = Class A
8	Smoke Developed Index	ASTM E84	-	Pass = Class A	Pass = Class A	Pass = Class A	Pass = Class A	Pass = Class A
9	Intermediate Scale Multi-Story Test	NFPA 285	-	30 minutes Passed	30 minutes Passed	-	-	-
10	Interior Room Corner Burn	UL 1715	-	15 minutes Passed	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>	62,663 9.089 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	3000 Series
15	Metal Skin Ultimate Tensile Strength	ASTM E8	MPa ksi	≥159 ≥23	≥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	≥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	0.5 ± 0.05 Nominal 0.020
18	Metal Skin Finishes	-	-	70% PVDF	70% PVDF	70% PVDF	70% PVDF	70% PVDF
19	Core Material Specifications	-	-	Polymer w/fire retardant filler	Polymer w/fire retardant filler	Polyethylene	Polyethylene	Polyethylene

- 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.