

## 4MANN ALUMINUM COMPOSITE PANEL

### TECHNICAL DATA SHEET 3R (RUBY) – 3MM

PARAMETERS	ASTM STD.	UNIT	Tolerance ±	Exterior / Interior
				3R - Ruby
				3MM
<b>Physical Properties of panel</b>				
Thickness of Panel	-	[mm]	±0.20	3.00
Weight of Panel	-	[kg/m <sup>2</sup> ]	± 5 %	3.80
Specific Gravity of Panel	ASTM D 792	[g/cm <sup>3</sup> ]	±5%	1.26
Adhesive Film Thickness	-	µm	±5	50
Protective Film Thickness	-	µm	±5	85
LDPE Core Density	ASTM D 792	µm	±5%	0.97
<b>Skin Properties</b>				
Thickness of Skin	-	[mm]	±0.02	0.25
Aluminum Alloy	ASTM B209M	-	-	AA 1xxx/3xxx
Temper	ASTM B209M	-	-	H18/H16
Tensile Strength	ASTM E8	[N/mm <sup>2</sup> ]	±5	140
0.2% Proof Stress	ASTM E8	[N/mm <sup>2</sup> ]	±5	110
Elongation	ASTM E8	[%]	±2	5
<b>Coat/Paint Properties</b>				
Surface Finish	-	-	-	PVDF Coated
Dry Film Thickness (Coating)	ASTM D7091	µm	±5	30
Gloss ( Initial Value )	ASTM D523	[%]	±5	30
Chemical Resistance (5% HCL -24 hrs)	ASTM D 1308	Visual	Passes	Passes
Cross Hatch	ASTM D 3359	Visual	Passes	100/100 ( No Color Peel off)
Reverse Impact (50 cm)	ASTM D 2794	cm	Passes	Passes
Solvent Rub Test (MEK test)	ASTM D 5402	DR	Passes	No Decoloration, Passes
Pencil Hardness Test	ASTM D 3363	HB	Passes	2HB, Passes
Humidity Test	ASTM D 2247	%	Passes	No Color Peel off, Passes
T-Bend Flexibility	ASTM D 4145	T	Passes	>2T
<b>Acoustical Properties of panel</b>				
Sound Transmission Loss Rw	ASTM E90	[db]	-	23
<b>Thermal Properties of panel</b>				
Heat Transition Coefficient U	ASTM C1363	[W/m <sup>2</sup> K]	-	5.62
Linear Thermal Expansion	ASTM D696	[mm/m/°C]	-	2.3 (at 100 °C)
Continuous use Temperature	ASTM C1363	[°C]	-	-50...+80