

ALUMINUM TILE

TECHNICAL SPECIFICATION

SR. NO	DESCRIPTION	ASTM & STANDARD	UNIT	3MM RUBY SPECIFICATION
A) PHYSICAL PROPERTIES OF ACP PANEL				
1	Thickness of Composite Panel	--	mm	3
2	Skin Thickness	--	mm	0.25
3	Weight	--	Kg/m ²	4.3 ± 5%
B) MECHANICAL PROPERTIES OF ACP PANEL				
1	Tensile Strength	ASTM D638	N/mm ²	25
2	Elongation	ASTM D638	%	15
3	Shear Punch Strength	ASTM D732	N/mm ²	15
4	Climbing Drum Peel Strength	ASTM D1781	N/mm/mm	>150
5	Peel Strength 180°	ASTM D903	N/25mm	>100
C) MECHANICAL PROPERTIES OF ALUMINIUM SKIN				
1	Aluminium Alloy Grade	ASTM B209M	--	AA3003/AA5005 - H16/H18
2	Tensile Strength	ASTM E8	N/mm ²	160-205
3	Yield Strength	ASTM E8	N/mm ²	120-140
4	Elongation	ASTM E8	%	5-7
5	Modules of Elasticity	ASTM E8	N/mm ²	≥70,000
D) ACOUSTICAL PROPERTIES				
1	Sound Transmission Class (STC) Rw	ASTM E413 / ISO 717	[dB]	22
2	Noise Reduction Coefficient (NRC)	ASTM C423 / ISO 354	--	0.05
E) PAINT PROPERTIES				
1	Type of Coating	--	--	PVDF / FEVE (As per type of surface)
2	Gloss at 60° Angle	ASTM D523	GU	20-40 (As per type of surface)
3	Coating Thickness	ASTM D7091	μ	25 ± 3 (Metallic/Solid Series) 35 ± 5 (Premium Series)
4	Formability (T - Bend)	ASTM D4145	Visual	Min 2T
5	Reverse Impact (Falling Height)	ASTM D2794	225 mm	Paint No peel off
6	Adhesive Force :-			
	Dry	ASTM D3359	Visual	Passed
	Under Water - 72Hrs	ASTM D3359	Visual	Passed
	Boiling Water - 8Hrs	ASTM D3359	Visual	Passed
7	Pencil Hardness	ASTM D3363	Visual	HB-H
8	Solvent Rub Test	ASTM D5402	Visual	No Exposed Aluminium
9	Chemical Resistance Test			
	Acid Resistance	AAMA 2605	Visual	Passed
	Alkali Resistance	AAMA 2605	Visual	Passed
	Mortar Resistance	AAMA 2605	Visual	Passed
	Oil Resistance	--	Visual	No Damage
10	Abrasion Resistance (Falling Sand)	ASTM D968	Liters/mil	≥40
11	Colour Retention (3000 Hrs)	ASTM D2244	ΔE	Max. 5 units
12	Gloss Retention (3000 Hrs)	ASTM D523	%	70
13	Chalk Resistance (3000 Hrs)	ASTM D4214	Visual	Max. 8 units
14	Salt - Spray Resistance (4000 Hrs)	ASTM B117	Visual	No Blister
15	Humidity (4000 Hrs)	ASTM D2247	Visual	No Blister
16	Accelerated Weathering Test (4000 Hrs)	ASTM D1654	Visual	No Fading

PRODUCT TOLERANCE : Panel Width ± 2.00mm, Panel Length ± 4.00mm ; Panel Thickness : ± 0.2mm; Maximum Squariness : 5.0 mm.

Maximum Bow : 0.5% of width and / or length ; Coil Thickness : ± 0.03 mm Tolerance.

* Kynar 500 (Arkema) is special formulation of PVDF and other resins where PVDF is min 70%.

All test values of PVDF coating shall be obtained during specific supply in our test certificate.