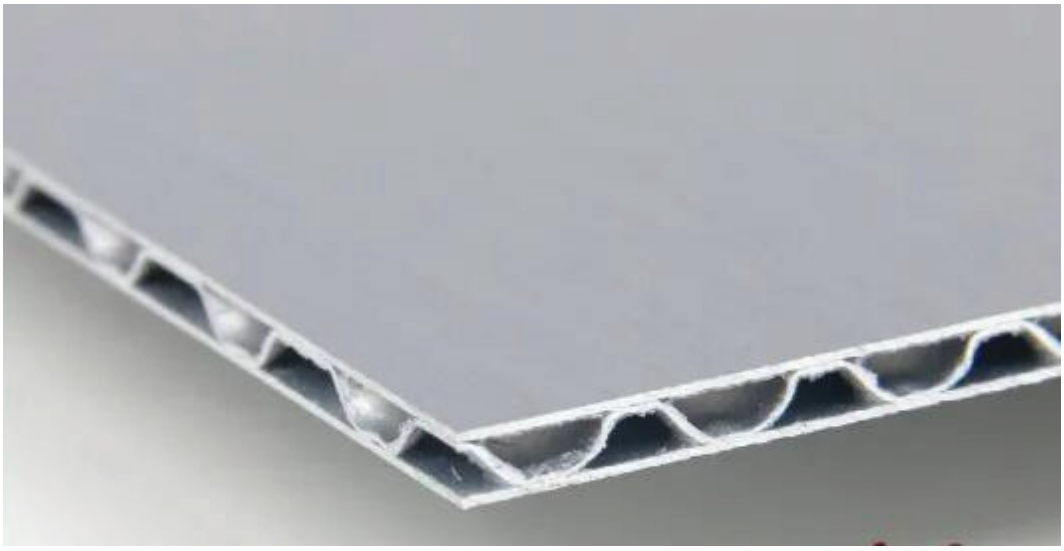
ALUSTRA FR-ALU.CORE

- Two sheets of aluminium sandwiching a corrugated aluminium core, formed in a continuous lamination process.

- The core material shall be free of voids or air spaces and must not contain foamed insulation material.

- ALUSTRA FR-ALU.CORE is a newly developed composite panel that can be used in place of conventional PE and FR core panels. It is also suitable as an alternative to honeycomb and solid cladding sheets.

- **The key advantages are:**
  - Lightweight compared to solid sheets, as well as PE and FR core panels.
  - Non-combustible aluminium core.
  - Easier to fabricate than honeycomb panels.
  - Greater strength due to the corrugated core.
  - Cost-effective solution.
  - Improved sound and heat insulation.
  - 100% recyclable material.



ALUSTRA

SN.	PROPERTIES	STANDARD	UNIT / REF	4 mm		6 mm
Principal Properties						
1	Thickness Sheet	-	mm	4 MM		
2	Skin thickness	-	mm	0.5 MM		
3	Alloy	-	-	(1100, 3003, 3105, 5005) H16		
4	Weight	-	±0.5 Kg/m²	3.47		4.50
5	Standard width	-	MM	1000, 1250, 1500, 1600		
Product Tolerances						
6	Width	-	mm	±2		
7	Length	-	mm	±3		
8	Thickness	-	mm	±0.2		±0.3
9	Squareness	-	mm	Max 5		
10	Bow	-	%	±0.5		
Mechanical Properties						
11	Tensile Strength	ASTM E8	MPa or N/ mm²	170		175
12	Yield Strength	ASTM E8	MPa or N/ mm²	150		170
13	0.2 % Proof stress	ASTM E8	MPa or N/ mm²	66		62
14	Elongation	ASTM E8	%	12		8
15	Modulus of elasticity, E	ASTM C 393	GPa or KN/mm²	69		
16	Rigidity, E^{xl}	ASTM C 393	KN mm²/mm	125	240	240
Acoustical Properties						
17	Sound Transmission Loss	ASTM E413	dB	41		45
Thermal properties						
18	Deflection Temperature	ASTM D648	°C	120		
19	Thermal Conductivity W	ASTM D976	m.K/W	0.33		0.13
20	Temperature Resistance		°C	-40 to 120		
21	Linear Thermal Expansion	ASTM D696	x10⁻⁶/° C	12		
Core Fire Performances						
22	Core	-	-	Excellent Performance Non-Combustible aluminum core		
23	Reaction to Fire	EN 13501-1	-	A2, S1, d0		
24	Surface Burning CHARECTERSTICS	DIN4102 Part 1	-	Class A2		
25	Exterior Non-Load Bearing Wall Assembly	NFPA 285	-	passed Various Assembly Tests		
Coating Performances						
26	No of Coats	AAMA 2605 -13	-	Standard 2 coat / 3 Coat / 4 Coat		
27	Type / Finish		-	Standard NANO PVDF / PVDF / FEVE / HDPE		
28	Gloss @ 60°c		%	20-40 / 20-80		
29	Adhesion (Dry Condition)		-	No Adhesion Loss		
30	Pencil Hardness		-	Min HB		