

AYAN FCB — Fiber Cement Board

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Non-combustible building board for internal and external applications: cladding, partitions, ceilings, flooring and fire-rated enclosures. Manufactured to ASTM C1186 / BS EN 12467. 100% asbestos-free.

ORIGIN

Made in Saudi Arabia

ASTM E84 · FSI 0

Class A · UL R41405

BS 476 PART 4

Class 0 · Non-Comb.

ASTM C1186 · TYPE A

Grade 2

CDPH V1.2

Low VOC

1 FIRE & SAFETY PERFORMANCE

PROPERTY	TEST STANDARD	PERFORMANCE VALUE
Flame Spread Index (FSI)	ASTM E84 / UL 723	0 – Class A
Smoke Developed Index (SDI)	UL 723	0
Combustibility	BS 476 Part 4	Non-Combustible (Class 0)
Fire Propagation Index (I)	BS 476 Part 6	0
Surface Spread of Flame	BS 476 Part 7	Class 1

2 MECHANICAL & PHYSICAL PROPERTIES

PROPERTY	TEST STANDARD	PERFORMANCE VALUE
Apparent density (dry)	ASTM C1185	1.35 g/cm ³ (1,350 kg/m ³) ± 10%
Flexural strength (wet / conditioned)	ASTM C1185 / C1186	> 7.0 MPa / > 13.0 MPa
Classification	ASTM C1186	Type A · Grade 2
Moisture content (at equilibrium)	ASTM C1186	< 12%
Water absorption (48 hours)	ASTM C1186	< 30%
Linear change (30% → 90% RH)	ASTM C1186	0.33% (average)
Thermal conductivity (@ 25 °C)	ASTM C518	0.15 W/m·K
Sound transmission class (STC)	ASTM	30 – 64 (assembly dependent)
Design UDL — flooring (18 mm, continuous spans)	ASTM C1185 (derived)	800 kg/m ² · 300 mm c/c
Non-combustibility (750 °C furnace)	ASTM E136	Certified · UL R41405

Design UDL — engineered design value from tested flexural strength (safety factor above 5.0, deflection within L/360).

3 HEALTH, ENVIRONMENT & DURABILITY

PROPERTY	TEST STANDARD	PERFORMANCE VALUE
TVOC emissions (28 days)	CDPH v1.2	< 0.01 mg/m ³
Asbestos / formaldehyde content	—	Not detected (100% free)
Freeze-thaw & heat-rain resistance	ASTM C1185	Pass — no delamination
Warm water immersion (56 d @ 60–65 °C)	ASTM C1185	Pass — no visible defects

4 DIMENSIONAL STANDARDS

PARAMETER	SPECIFICATION
Standard sheet size	2400 × 1200 mm
Standard thicknesses	6 · 9 · 12 · 15 · 18 mm
Custom thicknesses	Available on order
Edge profiles	Square (SE) · Recessed (RE)
Thickness tolerance	± 0.3 mm
Squareness tolerance	± 2.0 mm/m
Length / width tolerance	± 0.5% / ± 6 mm max (per ASTM C1186 class)

5 TYPICAL APPLICATIONS

REFERENCES ARE DESIGN STANDARDS ONLY

APPLICATION	DENSITY RANGE	KEY REFERENCE
High-rise external cladding	1,350–1,600 kg/m ³	NFPA 285 / E119
Internal partitions — healthcare, education, public	1,250–1,350 kg/m ³	BS 476 · CLASS 0
Ceilings, soffits & tile underlay in wet areas	1,250–1,350 kg/m ³	WARM WATER · 56 D
Mezzanine & structural subflooring; raised floors	1,350–1,600 kg/m ³	ASTM C1186 · GRADE 2
Fire-rated shaft & duct enclosures	1,250–1,600 kg/m ³	BS 476 PARTS 4, 6, 7
Modular building (LGS) sheathing	1,250–1,600 kg/m ³	ASTM C1186 · TYPE A

6 DENSITY

BOARD	DENSITY RANGE	TYPICAL USE
Fiber cement board	Dry 1,350 ± 10% · wet 1,600 kg/m ³	All certified applications

7 HANDLING & STORAGE

Store flat, off the ground, in dry covered conditions; carry sheets on edge. Acclimatize on site 48 hours before fixing. Fix with corrosion-resistant screws or ring-shank nails; tape joints with fiberglass tape and approved compound. Seal cut edges externally.

8 QUALITY ASSURANCE & VERIFICATION

SYSTEM / TEST	CERTIFICATION / REPORT
ISO 9001:2015 — Quality Management	EBS Registrars · Cert 0126-511109
ISO 14001:2015 — Environmental Mgmt	EBS Registrars · Cert 0127-511209
UL surface burning listing	File R41405 — valid & active
Fire reaction testing	Thomas Bell-Wright · Reports WJ026-1 / WJ026-3
Physical & mechanical testing	Fugro-Suhaimi · Report YNB-CMT-MR-25-00961
VOC emission testing	Wimpey Laboratories · Report WD-R-250520-0005/2

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