

SPECIFICATION COMPLIANCE CHECKLIST

Section 07 42 13 - Metal Composite Wall Panels



Fire Resistant & Non-Combustible Cladding

PART 1: GENERAL

ASTM E330 Structural Performance

Perimeter Framing Deflection $\leq L/175$

Panel Deflection $\leq L/60$

Panel Deflection - Compliant

± 75 psf, 20.0 psf water penetration per ASTM E330

		Deflection (in)		Permanent Set (in)	
		Measured	Allowed Per TAS 202 (L/250)	Measured	Allowed Per TAS 202 (L/720)
Design Pressure	+ 75.0/psf	0.15	0.48	0.01	0.17
	- 75.0/psf	0.10	0.48	< 0.01	0.17
Test Pressure	+ 112.5/psf	0.23	0.48	0.17	0.17
	- 112.5/psf	0.17	0.48	0.02	0.17

Perimeter Framing Deflection - Compliant

		Deflection (in)		Permanent Set (in)	
		Measured	Allowed Per TAS 202 (L/1333)	Measured	Allowed Per TAS 202 (L/3899)
Design Pressure	+ 75.0/psf	0.01	0.09	0.01	0.03
	- 75.0/psf	0.02	0.09	< 0.01	0.03
Test Pressure	+ 112.5/psf	0.01	N/A	< 0.01	0.03
	- 112.5/psf	0.12	N/A	< 0.01	0.03

Quality Assurance

Product Certifications & Test Report Compliance

ICC-ESR Certification Report (ESR-4566) [View](#)

ICC-AC 25 Certification of Compliance Listing [View](#)

CBC

DSA

OSHPD

LABC

FL 33597

Florida Product Approval HVHZ

FL I6406-R5

MCM Manufacturer Qualifications

12 Years Manufacturing Experience

Produces FR core material in-house

Intertek - Product Testing, Certification, Listing Compliance

Project References [View](#)

ASTM E283, Air Leakage

< 0.06 cfm per sf at psf

0.02 cfm/ft² (0.10 L/s/m²) at 1.57 psf (25 mph) Compliant

0.04 cfm/ft² (0.20 L/s/m²) at 6.27 psf (50 mph) Compliant

ASTM E331, Water Penetration

No water infiltration at 6.24 psf (0.299 kPa)

No water infiltration at 20 psf (0.96 kPa) Compliant

Fire Performance

Compliant with regulatory fire code testing

NFPA 285, ASTM E84, ASTM E119, ASTM E108, ASTM D1929, CAN/ULC S102, CAN/ULC S134

** See page 2 for result summaries for each test.

Warranty

Bond Integrity	10 Years	Product
Hairline Aluminum	10 Years	Finish
2 Coat Solid / 2 Coat Mica	30 Years	Finish
Vivid Solid	20 Years	Finish
3 Coat Metallic	30 Years	Finish
Wood and Metal Series	20 Years	Finish

PART 2: PRODUCT

MCM Material

Two sheets of aluminum sandwiching a solid core of extruded thermoplastic fire-resistant solid material formed in a continuous process with no glues or liquid adhesives between dissimilar materials.

MCM Face Sheets

Aluminum Alloy	3003-H14
Thickness	0.5mm (0.020") nominal of each

SPECIFICATION COMPLIANCE CHECKLIST

Section 07 42 13 - Metal Composite Wall Panels



Fire Resistant & Non-Combustible Cladding

PART 2: PRODUCT (con't)

MCM Panel Dimensions

Thickness	4mm (0.157 in) & 6mm (0.236 in)
Widths	40", 50", 62"
Lengths	Made to order 48" min - 300" max

MCM Fire Resistant Core

Fire Resistant Mineral Core:

3.0 mm (0.117 in) nominal	4mm FR panel
5.0 mm (0.197 in) nominal	6mm FR panel

Finishes

AAMA 2605 Compliant Coil Coated

70% KYNAR® 500 based Polyvinylidene Fluoride (PVDF) finishes

PROPERTY	STANDARD	COIL COATED ALUMINUM
Color Uniformity	ASTM D2244	Max. 2 Delta E
Color Retention - Fade	ASTM D2244	≤ 5 Delta E units
Chalk Rating	ASTM D4214	≤ 8 units
Specular Gloss	ASTM D523	± 5 units
Dry Film Hardness	ASTM D3363	F - 2H
Dry Adhesion	ASTM D3359	No coating removal
Abrasion Resistance	ASTM D968	Abrasion Coefficient Value ≥ 40
Reverse Impact	ASTM D2794	No coating removal
Muriatic Acid Resistance (10% HCl, 15 min)	ASTM D1308	No blistering or visual change
Nitric Acid Resistance (HNO ₃ , 30 min)	ASTM D1308	≤ 5 Delta E
Alkali Mortar Resistance (10%, 25% NaOH, 60 min)	ASTM D1308	No removal No loss of adhesion or visual change
Flexibility	ASTM D4145	2T - no pick off
Humidity Resistance	ASTM D714	4000 hour exposure
	ASTM D2247	Less than "few" blisters Size No. 8
Cyclic Corrosion	ASTM B117	2000 hour exposure Min rating of 7 scribe or cut edge
	AAMA 2605-13	Min. blister rating of 8

Bond Integrity

No adhesive failure when tested to ASTM D1781

ICC-AC 25 ASTM D1781 Intertek Report No. J6080.01-106-16 R0

Condition	Peel Torque (in•lb/in)		Result
	Average	Required	
Control	39.91	22.5	Pass
8 Hour Boil	48.71	22.5	Pass
21 Day Water	40.31	22.5	Pass
Freeze - Thaw	42.21	22.5	Pass

Fire Performance

Intertek Certified Test	Results
NFPA 285 Multi-Story Fire Test	Passed
ASTM E84: Flame spread <25 Smoke Developed <450	Class A Flame Spread: 0 Smoke Developed: 0
CAN/ULC S102	Class A Flame Spread: 0 Smoke Developed: 0
CAN/ULC S134	Passed
ASTM E119	Passed - 2 Hour rating
ASTM E108 Surface Flammability	Passed
ASTM D1929 Ignition Temperature	Flash: 716 °F (380 °C) Ignition: 752 °F (400 °C)

Technical Properties Data Sheet

Alfrex MCM 4mm FR

[View](#)

Alfrex MCM 6mm FR

[View](#)

Related Materials

Matching trim and accessories formed from sheet metal to match MC panel finish.

Alfrex stocks 0.040" x 48" x 120" flat sheet in 32 colors that match Alfrex FR MCM standard colors.