

# TECHNICAL DATA SHEET

Alfred Zinc Composite Material



Fire Resistant & Non-Combustible Cladding

COMPOSITION		
PROPERTY	ZCM 4mm FR	UNITS
Zinc Skin Alloy	Titanium Zinc Alloy (Zn 99.995%, Ti 0.07% - 0.12%, CU 0.08% - 0.2%, Al 0.001% - 0.015%)	
Zinc Skin Finish	Pre-Weathered Finish	
Sheet Thickness	0.157	in
	4.0	mm
Skin Thickness (nominal)	0.028	in
	0.70	mm
Core Material	Fire rated mineral filled core	
Panel Weight	2.92	lb/ft <sup>2</sup>
	14.26	kg/m <sup>2</sup>

STANDARD SIZES		
PROPERTY	ZCM 4mm FR	UNITS
Standard Widths	39.37	in
	1000	mm
Max Width	48	in
	1220	mm
Recommended Length	144	in
	3658	mm
Max Length	196	in
	4978	mm

PRODUCTION TOLERANCES		
PROPERTY	4mm FR	UNITS
Width	+ / - 0.157	in
	4.0	mm
Length	+ / - 0.394	in
	10.0	mm
Thickness	+ / - 0.008	in
	0.20	mm
Squareness	+ / - 0.197	in
	5.0	mm

TECHNICAL PROPERTIES			
PROPERTY		ZCM 4mm FR	UNITS
Minimum Bond Strength	ASTM D1781	22.5	in•lb/in
		100	Nm/m
Tensile Strength (Zinc Skin)	ASTM B69	13.92 x 10 <sup>3</sup> - 37.99 x 10 <sup>3</sup>	Psi
		96 - 262	Mpa
Breaking Elongation	EN 988	Min 40	%
	ASTM B69	10 - 70	
Yield Strength (Zinc Skin)	EN 988	14.5 x 10 <sup>3</sup>	Psi
		100	Mpa
Coefficient of Expansion (Longitudinal - Length Dimension)		12.2 x 10 <sup>-6</sup>	in/in/°F
		22 x 10 <sup>-6</sup>	mm/mm/°C
Coefficient of Expansion (Transverse - Width Dimension)		9.44 x 10 <sup>-6</sup>	in/in/°F
		17 x 10 <sup>-6</sup>	mm/mm/°C
Core Density		0.054	lb/in <sup>3</sup>
		1.5	g/cm <sup>3</sup>

PRODUCT WARRANTY		
<i>See warranty tables and sample warranties for conditions and exclusions</i>		
Alfred FR ZCM	10 Years	Bond Integrity ASTM D1781

FIRE PERFORMANCE	
TEST	RESULT
NFPA 285	PASSED <i>Pressure equalized rainscreen assembly with 1/2" panels joints and ZCM splines</i>

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