

STANDARD PANEL 3-10



Panel Face: a³ CeramicSteel – 0.56 mm of steel enameled in porcelain with one finished side 0.84 mm total thickness

Panel Core: Medium Density Fiberboard – 9 mm of water-resistant MDF

Panel Back: Galvanized Steel – 0.4 mm thick cold rolled galvanized steel

Adhesive: Hot Melt Polyurethane

Edge Treatment: None

Panel Property	Testing Standard	Unit	Value
Panel thickness	EN 438-2 : 5	mm	10.4 ± 0.4
Length tolerance	EN 438-2 : 6	mm	0.1%
Width tolerance	EN 438-2 : 6	mm	0.1%
Squareness	Measured difference in diagonals on a 3050 x 1200 mm panel	mm	± 3
Minimal edge covering (framing system)		mm	6
Flatness	EN ISO 28722 (§5.7)		Max. 0.15% deflection on the largest diagonal or to the diameter of the panel
Weight		kg/m ²	15
Density		g/cm ³	1.5

a ³ CeramicSteel Surface	Testing Standard	Unit	Value
Gloss – Type G	ISO 2813 ASTM D 523	Gloss units (GU)	65 ± 10 GU (20°)
Gloss – Type M	ISO 2813 ASTM D 523	Gloss units (GU)	60 ± 10 GU (60°)
Color tolerance	ISO 7724 ASTM D 2244-02	ΔE ⁹⁴	ΔE ⁹⁴ ≤ 1.5 (compared to reference sample)
Reflectance	ISO 7724 ASTM D 2244-02	%	Y-Value up to 93%, depending on color
Orange peel	ISO 2813 ASTM D 523		Short wave (SW) ≤ 55 Long wave (LW) ≤ 25 Distinctness of image (DOI) ≥ 60
Defect appearance	EN 438-2:4		Free from defects liable to change the general appearance of the panel
Mohs hardness	EN 15771		Min. 5
Scratch resistance	ISO 15695	N	Min. 7
Pencil hardness	ASTM D-3363		> 9H
Wear resistance	ASTM C501	g	Max. 0.1 (abrasive S33 1 kg/1000 rev)
Impact	ISO 4532		No damage over 2 mm after 24 h (20 N load)
Coating adhesion	EN 10209 Annex D		Min. class 2
Porosity	EN14430	#/m ²	< 10 (1800 V)
Cold acid resistance	ISO 28706-1-9		Min. class A
Boiling acid resistance	ISO 28706-2-10	g/m ²	Max. 18.5
UV resistance	ISO 4892-3 (cycle 2)	ΔE ⁹⁴	ΔE ⁹⁴ ≤ 0.5 (2000 h)
Color stability	ASTM C 538	ΔE ⁹⁴	ΔE ⁹⁴ ≤ 5 (24 h)
Graffiti resistance	EN ISO 28722 (§7)		No color or gloss change after cleaning

This panel conforms to the following internationally recognized standards:

ISO 28722, Vitreous and porcelain enamels – Characteristics of enamel coatings applied to steel panels intended for architecture

European Enamel Authority, EEA 7.13, 7.14 – Quality requirement for architectural panels

European Normalization, EN 14431 – Vitreous and porcelain enamels – Characteristics of the enamel coatings applied to steel panels intended for architecture

Porcelain Enamel Institute, PEI 1001 – Specifications for architectural porcelain enamel

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