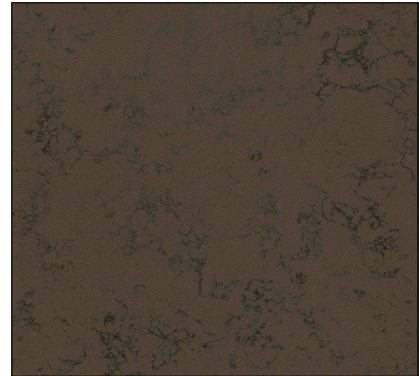


TECHNICAL DATA FOR QUARTZ BASED ENGINEERED STONES

Product:	MANAUS
Brand name:	SM QUARTZ®
Composition:	8 - 10 % Resin, 90 - 92 % Quartz
Pre-consumer recycled:	0 % by weight
Surface finish:	Polished, Honed, Brushed, Antique
Slabs size (cm):	305x140
Slabs thickness* (cm):	2,0 - 3,0
Tiles size* (cm):	30x30x1,2 - 40x40x1,2 - 60x60x1,2 - 60x30x1,2 - 50x30x1,2 - 60x40x1,2



* Other sizes and thicknesses available on request

Characteristics	Standard	Value	Notes
Apparent density	EN 14617-1	2325 - 2400 Kg/m ³	
Water absorption	EN 14617-1	≤ 0,10 %	
Flexural strength	EN 14617-2	55 - 70 MPa	
Abrasion resistance	EN 14617-4	29 - 33 mm	
Frost resistance	EN 14617-5	KM _{f25} 0,9 - 1,2	
Thermal shock resistance	EN 14617-6	Δm% ≤ 0,07 %	Test temperature: 70°C
		ΔR _{f,20} % ≤ 25 %	
Impact resistance	EN 14617-9	2,0 - 3,5 J	For thickness 12 mm
		≥ 6,0 J	For thickness 20 mm, 30 mm
Chemical resistance	EN 14617-10	C4	
Linear thermal expansion coefficient	EN 14617-11	28 - 38 x 10 ⁻⁶ °C ⁻¹	
Dimensional stability	EN 14617-12	Class A (<0,3 mm)	
Electrical resistivity	EN 14617-13	ρ _s ≥ 10 ¹⁰ Ω	Referred to surface
		ρ _v ≥ 10 ⁸ Ω m	Referred to volume
Compression resistance	EN 14617-15	150 - 250 MPa	
Length and width	EN 14617-16	± 0,5 mm	Referred to tiles
Thickness	EN 14617-16	± 0,7 mm	Referred to tiles
Straightness of sides	EN 14617-16	± 0,3 mm	Referred to tiles
Rectangularity	EN 14617-16	± 0,9 mm	Referred to tiles
Centre curvature	EN 14617-16	± 0,2% referred to length	Referred to tiles
Edge curvature	EN 14617-16	± 0,2% referred to length	Referred to tiles
Warping	EN 14617-16	± 0,2% referred to length	Referred to tiles
Mohs hardness	EN 101	up to 7 Mohs	
Thermal conductivity	EN 12524	1,3 W/(m K)	From tabulated values
Reaction to fire	EN 13501-1	A2fl-s1	
Slip resistance	EN 14231	≥ 35 (Dry)	
		≥ 3 (Wet)	
Slip resistance	DIN 51130	R9	For Honed H9