

## PENTALQUARTZ TECHNICAL SPECIFICATIONS

Specifications	Test Method	Results
Water Absorption	ASTM C97 / C97M-18	≤ 0.02 %
	BS EN 14617-1:2005	≤ 0.02 %
Apparent Density	ASTM C97 / C97M-18	2.1 – 2.3 g/cm <sup>3</sup>
	BS EN 14617-1:2005	2.1 – 2.3 g/cm <sup>3</sup>
Flexural Strength	ASTM C880/C880M-18	Fine and medium grain: ≥ 55 MPa Coarse grain: ≥ 41 MPa
	BS EN 14617-2:2016	Fine and medium grain: > 60 MPa Coarse grain: > 40 MPa
Compressive Strength	ASTM C170/C170M-17	Dry: ≥ 200 MPa
	BS EN 14617-15:2005	Dry: ≥ 185 MPa
Chemical Resistance	ASTM C650-04:2014	Unaffected
	BS EN 14617-10:2012	Class C4
Dimension Stability	EN 14617-12:2012	Class A
Impact Resistance	ASTM C1870-18	36-inch ball drop: ≤ 0.25 in 48-inch ball drop: ≤ 0.27 in
	BS EN 14617-9:2005	> 4 J
Abrasion Resistance	ASTM C501-84:2015	Abrasive Wear index: I <sub>w</sub> ≥ 179
	BS EN 14617-4:2012	Volume of chord: V ≤ 165 mm <sup>3</sup> Chord length: l ≤ 27 mm
Thermal Shock Resistance	ASTM C484-99:2014	No visible damage after 10 cycles
	EN 14617-6:2012	No visible defects after 20 cycles Change in mass: ≤ 0.05% Change in flexural strength: - 8.4% ÷ 5.4%
Freeze-thaw Resistance	ASTM C1026-13:2018	No visible damage after 300 cycles Wt.Loss: ≤ 0.09%
	EN 14617-5:2012	No obvious damage after 20 cycles KM <sub>f25</sub> = 93 ÷ 105%
Mohs's Scratch Hardness	EN 101: 1991	≥ 6
Slip Resistance	DIN 51130:2014	R9 at Honed 400
	ASTM C1028-07	Static coefficient of friction - Dry: 0.7 ÷ 0.8 (Polished/Honed finish) - Wet: 0.5 ÷ 0.7 (Polished/Honed finish)
Microbial Resistance	ASTM D6329-98	Ranking 3: Resistant to Mold Growth
Stain Resistance	ASTM C 1378-04:2014	Class A (Polished finish)
Surface Burning	ASTM E84	Class A