

PHYSICAL & CHEMICAL CHARACTERISITICS

No.	Test Item	Test Method	Result
1	Apparent Density	EN 14617-1:2013	2253 kg/m ³
	Water Absorption		0.02%
2	Flexural Strength	EN 14617-2:2016	48.7 MPa
3	Abrasion Resistance	EN 14617-4:2012	30.5 mm
4	Thermal Shock Resistance	EN 14617-6:2012 & EN 14617-2:2016	
		Appearance	After 20 cycles of thermal shock: No obvious appearance of spots, no obvious swelling, no obvious cracking, no obvious scaling or exfoliation
		Change in mass, Δm	0.02%
		Flexural strength after thermal shock resistance	50.1MPa
		Coefficient of thermal shock resistance as change in flexural strength, ΔR_f , 20	-2.90%
5	Impact Resistance	EN 14617-9:2005	5.44 J
6	Chemical Resistance	EN 14617-10:2012	Classification C ₄
7	Stains Resistance	EN 14617-10:2012 Annex A	No visible change
8	Linear Thermal Expansion Coefficient	EN 14617-11:2005	30.0 x 10 ⁻⁶ °C ⁻¹
9	Dimensional Stability	EN 14617-12:2012	Classification A
10	Compressive Strength	EN 14617-15:2005	171 MPa
11	Surface scratch hardness	EN 15771:2010	Mohs scale hardness 4
12	Thermal Conductivity and Thermal Resistance	EN 12664:2001 Heat Flow Meter Method	
		Thermal Conductivity	0.426 W/(m. K)
		Thermal Resistance	0.046 (m ² . K) / W
13	Quantitative Analysis of Crystalline Silica	FTIR and XRD	
		Composition	Content, Wt%
		Crystalline Silica	Characteristic peaks of crystalline silica were not found
14	ASTM E84-24	Flame Spread Index, FSI 10	Class A
		Smoke-developed Index, SDI 400	