

**Technical Specifications**
**Acid Proof Tiles: 300x300x12mm/15mm/20mm**

	Test Description	IS 4457:2007	12mm	15mm	20mm
<b>A) Dimension Quality</b>					
1	Length & Width	± 0.75%	± 0.6%	± 0.6%	± 0.6%
2	Thickness	± 5%	± 5%	± 5%	± 5%
3	Straightness of sides	± 0.5%	± 0.4%	± 0.4%	± 0.4%
4	Rectangularity	± 0.6%	± 0.5%	± 0.5%	± 0.5%
5	Surface flatness	± 0.5%	± 0.3%	± 0.3%	± 0.3%
<b>B) Physical Properties</b>					
1	Water absorption	< 0.5%	< 0.5%	< 0.5%	< 0.5%
2	Mohs Hardness		> 7	> 7	> 7
3	Flexural strength (Average MOR)	> 35N/mm <sup>2</sup>	> 38N/mm <sup>2</sup>	> 38N/mm <sup>2</sup>	> 38N/mm <sup>2</sup>
4	Breaking Strength	≥ 1300N	> 2500N	> 4000N	> 7500N
5	Abrasion resistance/Deep abrasion	< 175mm <sup>3</sup>	< 140mm <sup>3</sup>	< 140mm <sup>3</sup>	< 140mm <sup>3</sup>
6	Skid Resistance	> 0.4	> 0.6	> 0.6	> 0.6
7	Density (gm/cc)	> 2	> 2.2	> 2.2	> 2.2
8	Moisture expansion	Nil	Nil	Nil	Nil
<b>C) Chemical Properties</b>					
1	Resistance to Conc. Acid (wt. Loss)	< 1.5 %	≤ 1 %	≤ 1 %	≤ 1 %
2	Resistance to household chemicals & swimming pool salts	Resistance	Resistance	Resistance	Resistance
3	Stain resistance	Resistance	Resistance	Resistance	Resistance
<b>D) Thermal Properties</b>					
1	Thermal expansion	< 9 x 10 <sup>-6</sup> K <sup>-1</sup>	< 9 x 10 <sup>-6</sup> K <sup>-1</sup>	< 9 x 10 <sup>-6</sup> K <sup>-1</sup>	< 9 x 10 <sup>-6</sup> K <sup>-1</sup>
2	Thermal shock resistance	No damage	No damage	No damage	No damage