

Technical Characteristics Series EMPEROR

ANSI/ASTM Standards

Products: **CAESAR, ALEXANDER, NAPOLEON**

Sizes/Thicknesses (mm): **NOT RECTIFIED 12"x12"/8; 18"x18"/9**

Product group: **Porcelain Tiles - class P1** (Water absorption $\leq 0,5$ %)

Surface: **GLAZED (GL)**

Technical characteristics		Test method	ANSI A137.1: Values required for Glazed Porcelain Tiles Class P1	EMPEROR Values
Water absorption		ASTM C373	≤ 0.5 %	≤ 0.05 %
Breaking strength		ASTM C648	≥ 250 pounds	Compliant
Resistance to surface abrasion		ASTM C1027 (PEI method)	Not required	5
Scratch resistance		CTI 81-7 A	Not required	7
Linear thermal expansion		ASTM C372	Not required	$\alpha \leq 8 \cdot 10^{-6} \text{ }^{\circ}\text{C}^{-1}$ $\alpha \leq 4.4 \cdot 10^{-6} \text{ }^{\circ}\text{F}^{-1}$
Thermal shock resistance		ASTM C484	No sample must show visible signs	Resistant
Chemical resistance		ASTM C650	Not required	Resistant
Stain resistance		CTI-T-81 D	Not required	Resistant
Frost resistance		ASTM C1026	Not required	Resistant
Bond strength		ASTM C482	≥ 50 PSI	Compliant
Dimensions	Warpage Edge	ASTM C485	± 0.75 % or max ± 0.09 inch	Compliant
	Warpage Diagonal	ASTM C485	± 0.50 % or max ± 0.08 inch	Compliant
	Nominal sizes	ASTM C499	± 3.0 % of nominal dimensions	± 1.50 %
	Caliber range	ASTM C499	± 0.50 % or max ± 0.08 inch	Compliant
	Thickness	ASTM C499	≤ 0.040 inch	≤ 0.030 inch
	Wedging	ASTM C502	± 0.50 % or max ± 0.08 inch	Compliant
Shade Variation		ANSI A137.1	According to manufacturer's statement	V4
Slip resistance		ASTM C1028	COF ≥ 0.60 slip resistant	dry-neolite: COF ≥ 0.60 wet-neolite: COF ≥ 0.60
Slip resistance		ANSI A137.1 (BOT 3000)	DCOF ≥ 0.42	DCOF ≥ 0.42

