

Standard Specification for Rubalit® 798 98% Al₂O₃

Physical Parameters		Unit	Range	Values*	Measurement Method
Surface roughness	R _a	µm	≤	0.3	Based on DIN EN ISO 4288
Density	-	g/cm ³	≥	3.75	Based on DIN EN 993-1
Bending strength DR sigma 0		MPa	≥	500	Based on ASTM C 1499-08, typical value
Young's modulus	-	GPa	≥	300	Based on ASTM C 1250-15, typical value
Thermal conductivity	RT	W/(m x K)	≥	26	According to DIN EN 821-2, typical value
Coefficient of thermal expansion (CTE)	100 - 800 °C	10 ⁻⁶ /K	+/-	7.0 - 9.0	According to DIN 51045-1, typical value
Specific heat capacity	25 °C	J/(g x K)	≥	0.77	Based on DIN EN 821-3, method B, typical value
Dielectric constant (@ R _a ≤ 0.4 µm)	RT, 1 MHz	-	+/-	10.2	Based on ASTM D150, typical value
Dielectric loss factor (@ R _a ≤ 0.4 µm)	RT, 1 MHz	[10 ⁻³]	≤	5	Based on ASTM D150
Volume resistivity	RT	Ωcm	≥	10 ¹⁴	Based on IEC 62631-3, typical value
Breakdown strength	20 °C	kV/mm	≥	AC 25 DC 25	Based on DIN EN 60243-1
Standard size	-	inch		7.5" x 5.5" +/- 1.2 %	Based on DIN EN 60243-1
Thickness	-	mm		0.25 to 0.5 +/- 10%	
Warpage/camber**	-	%		0.3 - 0.6	
Fracture toughness	IF method	MPa*√m	≥	3.0	Typical value

* +/- 10% measurement tolerances

** Depends on substrate thickness.

The measured values mentioned before were determined for test samples and are applicable as standard values. The values were determined on the basis of DIN-IDIN-VDE standards and if these were not available, on the basis of CeramTec standards. The values indicated must not be transferred to arbitrary formats, components or parts featuring different surface qualities. They do not constitute a guarantee for certain properties. We expressly reserve the right to make technical changes.

CeramTec
THE CERAMIC EXPERTS

Industrial Solutions
CeramTec-Platz 1-9
73207 Plochingen, Germany

Telefon +49 (0) 7153.611-11900
Email myceramtec@ceramtec.de
Web www.ceramtec-group.com



The measured values mentioned before were determined for test samples and are applicable as standard values. The values were determined on the basis of DIN-/DIN-VDE standards and if these were not available, on the basis of CeramTec standards. The values indicated must not be transferred to arbitrary formats, components or parts featuring different surface qualities. They do not constitute a guarantee for certain properties. We expressly reserve the right to make technical changes.