

Marketech International, Inc.

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TECHNICAL DATA

ISO ALUMINA

Special Isopressed Grades of Alumina ceramic are available as tubes, plates or special shapes and metallized power tubes.



BRAND		IP - 99	IP - 95
Composition	Al ₂ O ₃ %	99.5	95.0
Density	g/cm ³ ≥	3.85	3.65
Flexural Strength	MPa ≥	350	300
Tensile Strength	MPa ≥	240	160
Compressive Strength	MPa ≥	2800	2500
Elastic Modulus	GPa ≥	350	300
Hardness	HRA ≥	90	85
Poisson's Ratio		25	20
Wear Resistance	g/cm ² ≤	0.1	0.2
Maximum Use Temperature	°C	1700	1500
Coef. Thermal Expansion	X10 ⁻⁶ /°C	8.2	7.5
Thermal Conductivity	W/m°K (20°C)	25	20
Volume Resistivity	Ω · cm (20°C)	10 ¹⁵	10 ¹⁴
Dielectric Constant	@ 1 MHz	9.2	9.0
Dielectric Loss Tangent	tan δ x 10 ⁻⁴ , 1 MHz	2	3
Dielectric Strength	KV/mm, DC	20	20
Porosity		gas tight	gas tight
Acid Resistance	mg/cm ² ≤	0.7	7.0
Alkali Resistance	mg/cm ² ≤	0.1	0.2