

DEGUSSIT Y23

2023.04.03

Material Type: Yttria (Y₂O₃)

MECHANICAL & PHYSICAL CHARACTERISTICS (TYP.)

Purity		[wt.-%]	>99.7
Density		[g/cm ³]	≥4.90
Open porosity		[vol.-%]	0
Average size of crystallites		[µm]	20-30
Bending strength σ_m DIN EN 843-1		[MPa]	180
Thermal shock resistance		[-]	-/+
Young's modulus (static)		[GPa]	160
Hardness HV1		[-]	680
Maximum application temperature		[°C]	2200
Linear coefficient of expansion	20 - 500 °C	[10 ⁻⁶ /K]	7.16
	20 - 1000°C		7.91
Typical colour		[-]	white-grey

The data indicated on this table are in line with the introductory German Industrial Standard DIN 60672-2 are relate to test specimens from which they were obtained. They are not unconditionally applicable to other forms if the same material. The data must be regarded as indicative only. All data refer to a temperature of 20 °C, unless otherwise specified.

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