

## MATERIAL DATA SHEET

Material type: Aluminium Oxide (Al<sub>2</sub>O<sub>3</sub>)

### DEGUSSIT AL24

Properties		Unit	Specific value
Main component		-	α - Al <sub>2</sub> O <sub>3</sub>
Purity		wt-%	> 99.5
Density		g / cm <sup>3</sup>	> 3.4
Open Porosity		vol.-%	≤ 5
Average Size of Crystallites		µm	40
Bending Strength σ <sub>m</sub>	DIN EN 843-1	MPa	150
Compressive Strength		MPa	1000
Maximum Service Temperature in Air		°C	1950
Linear Coefficient of Expansion	20 - 1000°C	10 <sup>-6</sup> / K	8.2
Thermal Conductivity	20 °C	W / (m * K)	27.8
	1000 °C	W / (m * K)	5.5
	1500 °C	W / (m * K)	4.5
Typical Colour		-	cream white

The data indicated on this table are in line with the introductory German Industrial Standard DIN 40680 and relate to test specimens from which they were obtained. They are not unconditionally applicable to other forms of the same material. The data must be regarded as indicative only. All data refer to a temperature of 20 °C, unless otherwise specified.