T-E-Klebetechnik

Anwendungs-, Verfahrens- und Dosiertechnik



Ceramacast 645-N

Description

Ceramacast 645-N is a silicon dioxide based, pourable ceramic for casting temperature exposed parts with a high insulation value. This ceramic is characterized by its high temperature resistance.

Ceramacast 645-N is a proven product for the encapsulation of small ceramic and metal housings. It is used in a variety of high temperature devices such as heaters, flow meters, as well as pressure and temperature sensors in high temperature ranges up to 1,650 °C.

Technical Data

Characteristics	Ceramacast 645-N
Main Component	Silicon Dioxide
Max. Temperature	1650 °C
Mixed Viscosity	100 g/cm/s
Spec. Weight	ca. 1.32 g/cm ³ Powder Density
CTE	2.7 cm/cm/°C x 10 ⁻⁶
Dielectric Strength	11.8 KV/mm
Volume Resistivity	10 ⁹ Ohm/cm at RT
Moisture Resistance	Good
Alkali Resistance	Good
Acid Resistance	Good
Oxidation Resistance	Very Good
Mixing Ratio by Weight	100 : 21-23 (Powder:Water)
Shrinkage	< 0.3 % at 535 °C

Handling

Ceramacast 645-N is a water-mixable powder which can be poured after it has been mixed. Stir the powder thoroughly before adding water. Mix the powder and water to a homogeneous mass. Slight vibrations can prevent air inclusions.

Suitable for dip coating, for casting and sealing parts as well as for embedding parts by spray application.

Hardening

- 8 hours air cure at room temperature
- 2 4 hours heat cure at 90 °C
- 3 hours final cure at 125 °C