



Ultra-Temp 516

Description

Ultra-Temp 516 is a 1-K high temperature adhesive based on Zirconium-oxide.

This adhesive can be used as a coating or sealing compound for ceramics, glas, quartz, graphite or metals.

The extremely high temperature resistance, easy curing process and the good hardness and denseness after the cure make Ultra-Temp 516 suitable for various applications.

Ultra-Temp 516 is distinguished by its excellent dielectric attributes as well as its great resistance to moisture and oxidation.

Technical Data

Characteristics	Ultra-Temp 516
Main Components	Zirkonium-oxide
Max. Temperature	1760 °C
Viscosity	400 – 700 g/cm/s
Spec. Weight	2.15 – 2.30 g/cm ³ at RT
CTE	7.4 cm/cm/°C x 10 ⁶
Solvent	Water
Dielectric Strength	7.40 KV/mm at RT
Torque Strength	67791 N/mm
Moisture Resistance	Good
Alkali Resistance	Excellent
Acid Resistance	Good
Hardness	8.5 Moh's Scale

Handling

Smooth surfaces are difficult to bond and should therefore be roughened up, etched, blasted or oxidized. Thoroughly clean the surfaces of rust, grime, fat, oil.

Stir Ultra-Temp well before use, the distance between the composite pieces should be between 50-200 microns at operating temperature.

Less than 0.05 mm prevents uniform adhesion and more than 0.20 mm often results in cohesive shear fracture within the adhesive.

Hardening

- 1 – 4 Hours air cure
- 2 Hours heat cure at 90 °C
- 2 Hours heat cure at 260 °C
- 2 Hours final cure at 370 °C