HT Micaver®

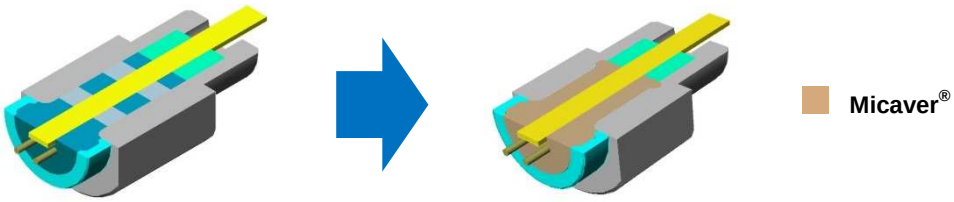
The Over-molding solution for complex assemblies of HT materials

Design your High Temperature multi material assemblies with built-in metallic or ceramic insert

HT Micaver® is a new injection moldable vitro ceramic that features the ability to integrate multiple metallic or ceramic parts during molding. Thanks to its thermal stability and a thermal expansion coefficient matching with metal as some ceramic ones, it is the perfect solution for HT applications up to 700℃ (1 300 ℉)

THE ADVANTAGE OF OVER MOLDING PROCESS

- Simplifies your process:
  - ✓ One single step for complex assembly of multi materials
  - ✓ Eliminate assembly operation
  - ✓ Eliminate sub-pieces management
  - ✓ Finished product in only one molding cycle
  - ✓ Decrease dimensions of pieces
- Improve your productivity and process reproducibility
- Improve products quality with a better interface (adhesion, air tightness)
- Enlarge the flexibility and the design possibilities



Initial assembly Overmolded

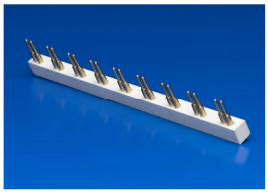
DRASTIC SIMPLIFICATION
From 5 different materials to 1 material i.e. Micaver®
Multimaterial thermal expansion matching is avoided
Compacity
Cost reduction

Powerful solution to produce multi material pieces for thermal, mechanical or electrical applications

With Plastics moldability and Ceramics ability to withstand high temperature (until 700℃ continuously), HT Micaver® offers a panel of characteristics: Low thermal conductivity, high mechanical performances, and outstanding electrical insulating properties.
It is most of all suitable to assemble electrical components made of both conductive and insulating parts

APPLICATIONS

- High temperature lamp socket
- Electrode for gas heating
- Automotive parts as oxygen sensor
- Thermal shock resistant insulating devices
- Contact material in glass industry
- High temperature electrical devices



TYPICAL CHARACTERISTICS

- Dimensional stability even continuously, excellent resistance to thermal shock
- Match with thermal expansion coefficient of metals
- Low thermal conductivity
- Allows vacuum-tight hermetic seal
- UV resistant, excellent resistance to many acids

Property	Test Method	Units	Micaver® HT
Density		g/cm^3	2,8
Continuous Operating Temperature		℃ (℉)	700 (1292)
Maximum Peak Temperature		℃ (℉)	750 (1382)
Thermal Conductivity **170℃ (338℉)** **350℃ (662℉)** **630℃ (1166℉)**	SFC P 212	 W/m/K W/m/K W/m/K	 1,0 1,0 0,8
Thermal Expansion Coefficient		$10^{-6}/K$	16
Dielectric Strength		kV/mm	4,2
Surface Resistivity	IEC 93	Ω	$1,4.10^9$

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