

UHTR Frequently Asked Questions

What is UHTR?

- UHTR is a series of siloxane composite resins for composite parts requiring service temperatures above 500°F (260°C), up to 1832°F (1000°C)
- UHTR is available as

○ UHTR-IPA	65% resin solids in Isopropyl Alcohol
○ UHTR-IPA-RS	80% resin solids in Isopropyl Alcohol
○ UHTR-LS	95% resin solids, no IPA
○ UHTR-NS	100% resin solids – NO Solvent

What reinforcement material can be used with UHTR?

- Glass
- Carbon Fiber
- Silica/Quartz
- Basalt

How is UHTR different from other composite resins?

- UHTR is formulated to be a replacement for current composite resins when the final part requires operating temperature above 500°F (260°C), up to 1832°F (1000°C)
- UHTR does NOT require special training for customers familiar with composite manufacturing
- UHTR does NOT require a post-cure to achieve the temperature stability

What manufacturing processes can be used with UHTR?

- Hand / wet layup
- Tow winding
- BMC / SMC
- Vacuum Infusion
- Pre-pregs

What are the molding & curing guidelines for UHTR?

- Molding parameter will vary by part and application but general guidelines are:
 - Fabric/fiber is wet out with UHTR resin
 - Resin-infused fabric is formed into part shape
 - Part is cured at 150°C for 2 hour under pressure
 - Part can be de-molded if final cure temp is too high for mold
 - Temp increased to 225°C for 1 hour while maintaining pressure
 - Mold is removed from oven and allowed to cool

- UHTR does NOT require a post-cure to achieve the temperature stability

In what Markets or Applications is UHTR useful?

- Composites & Coatings for Aviation / Aerospace
 - Architectural Applications
 - Composite fire door
 - Composite fire barrier for structural building components
- Automotive Composites
 - Exhaust
 - Fire wall
 - Valve covers
- Composite for Marine Applications
- Foundry / Refractory
- Coatings for:
 - Stoves
 - Exhausts
 - Furnaces
 - Cookware

Where can I get more information about UHTR?

- www.techneglas.com
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