STEREOLITHOGRAPHY

CERAMIC-LIKE WHITE

(ADVANCED HIGH TEMP)

Current Supplier Material: PerFORM



PRODUCT DESCRIPTION

Ceramic-Like White (Advanced High Temp) combines superior high heat tolerance with strength and stiffness. A thermal post-cure can be used to further improve mechanical properties and its heat resistance, however, it will be more brittle.

APPLICATIONS

Advanced Ceramic-Like High-Temp White is often used for automotive housings, electrical casings, wind tunnel testing, and other components that require high heat tolerance and strength.



KEY PRODUCT BENEFITS

- High strength and stiffness
- Superior heat tolerance

PROPERTIES

PROPERTY	TEST METHOD	VALUE	AFTER OPTIONAL THERMAL POST-CURING
Color	-	White	White
Density in solid state*	@ 25 °C (77 °F)	1.61 g/cm³	-
Water absorption (20 °C, 50% relative humidity)	ASTM D570	0.35 ± 0.15%	0.35 ± 0.15%
E-module (x-y plane)	ASTM D638, test speed 10mm/min.	10,000 ± 1,000 MPa	10,500 ± 1,000 MPa
Tensile strength (x-y plane)		70 ± 10 MPa	75 ± 10 MPa
Elongation at break (x-y plane)		1.5 ± 1%	1 ± 0.5%
Heat deflection temperature @ 0,46 MPa*	ASTM D648	132 °C (270 °F)	268 °C (514 °F)
Heat deflection temperature @ 1,82 MPa*		82 °C (180 °F)	119 °C (246 °F)

*From supplier data sheet

TOLERANCES

For well-designed parts, tolerances in the X/Y dimension of ± 0.002 in. (0.05mm) for the first inch plus ± 0.001 in./ in., and Z-dimension tolerances of ± 0.005 in. (0.127mm) for the first inch plus ± 0.001 in./in. (0.001mm/mm), can typically be achieved. Note that tolerances may change depending on part geometry.

Version 1.0 I December 2019

