

HT-GLASS



HT-GLASS is a new generation of high performance glass fiber which has been independently developed by CPIC. It is a high strength glass formulation without fluorine and boron. To ensure the stability of production, the unique glass melting technology and fiber drawing process have been adopted.

HT-glass Features:

- **Higher Tensile Strength:** Strand tensile strength of HT-glass is over 30% higher than that of E-glass. This feature can meet the needs of defense and military project.
- **Higher Tensile Modulus:** Strand tensile modulus of HT-glass is over 15% higher than that of E-glass. This feature can provide dimension stability of composite products.
- **Lower Density:** Density of HT-glass is 5% lower than that of E-glass. This feature will make composite products higher strength-density-ratio and modulus-density-ratio, which can give the composite products higher load ratio.
- **Higher Impact Resistance and Fatigue Resistance:** Impact Resistance and Fatigue Resistance of HT-glass have been greatly improved than those of E-glass. This feature can provide higher reliability, longer service life and lower maintenance cost.
- **More Excellent High Temperature Resistance and Corrosion Resistance:** This feature can make composite products excellent adaptability in a variety of harsh environment.
- **Whiter :** The color of HT-glass is whiter than other types of fiberglass. This feature can meet white color need of high performance composite products.

HT-glass Properties:

Sample type	Property	Unit	Fiberglass type		Test method
			E-glass	HT-glass	
Glass	Density	g/cm ³	2.59~2.63	2.45~2.51	ASTM D1505
	Softening Point	°C	840~850	935~950	ASTM C338
	Acid Resistance	%	20.6	2.1	Weight Loss in 10% H ₂ SO ₄ 100hrs at 96°C
	Alkaline Resistance	%	6.0	2.2	Weight Loss in 0.1M NaOH 24hrs at 60°C
Impregnated strands	Tensile Strength	MPa	2300~2600	3300~3700	ASTM D2343
	Tensile Modulus	GPa	78~82	95~100	
UD laminates	Tensile Strength	Mpa	800~950	1500~1700	ISO 527-5(60% FVF)
	Tensile Modulus	GPa	39~41	55~57	

Application:

HT-glass are widely applied in the aerospace, defense, warship and energy. For instance, Missile engine case, Shuttle lining, Gunstock, Launching gunbarrel, Bulletproof armor, Helicopter blade, Aircraft floor, Indoor and structural components, Large wind leaf skeleton, Temperature resistant material, Chemical pipeline, Fiber optic cable.

Available Products

Product Form	Sizing	TEX	Resin Compatibility	Suitable Process
Roving	369H	200,300,600,1200	Polyester, Vinyl Ester, Epoxy	Weaving, Filament Winding, Prepreg, Pultrusion, Texturizing
	368G	300,600,	Epoxy	
Yarn	T5	46,68	Epoxy, Polyester	Weaving, Braiding, Texturizing
Fabric	/	100,180,210,240,300,600(g/m ²)	Epoxy, Phenolic	Prepreg, RTM

