



High Performance "E6[®] Enhanced Glass Fiber"
Will Promote the Progress of Composites.

E6[®]

Enhanced Glass Fiber

- High Performance Environment-friendly Fiberglass
- Compliant with ASTM D578 and ISO 2078 Standards
- An Optimal Combination of Boron-free E-glass and E-CR Glass



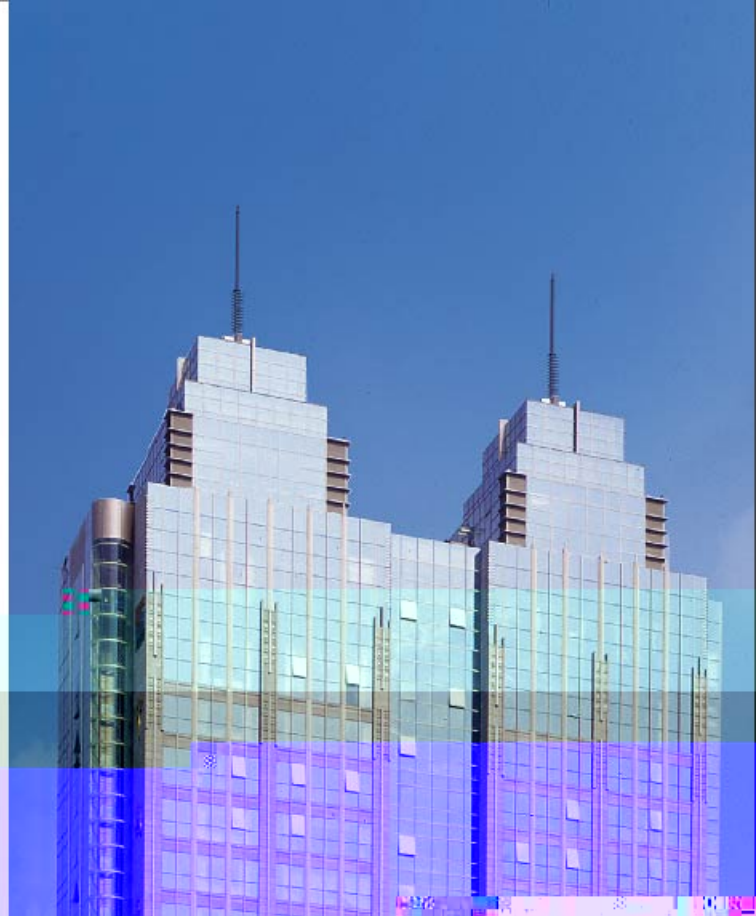
COMPANY PROFILE

China Jushi specializes in the production of glass fiber. The company has attained the leadership position in the global glass fiber industry in terms of Output, Technology, R&D, Quality and Market Share. Jushi Group is a Chinese national, key high technology enterprise, operating a distinguished Post-Doctoral program.

Jushi always adheres to its fundamental Management principles:

- "Apply science and technology for development,
- Build the brand name to expand market share,
- Emphasize management to improve efficiency and
- Employ talented people to enable future growth".

The company owns proprietary, world-class core technologies



leadership position in the global glass fiber industry through endless pursuit of innovation and excellence.



GOALS

Enhance Product Performance

Expand Applications

Minimize Environmental Footprint

Increase Customer Satisfaction

REVOLUTIONARY NEW GLASS FIBER

Expands the Scope of Composite Applications

Compared with typical E-glass fiber, Jushi E6[®] offers the following unique benefits:

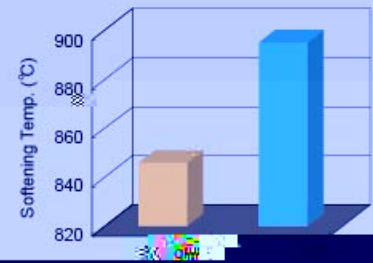
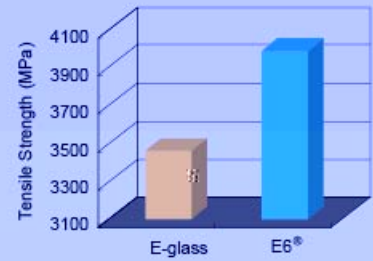
- Higher tensile strength, up to 20% higher than E-glass fiber
- Higher softening temperature, about 60 °C higher than E-glass fiber
- Raw materials containing no boron and no fluorine, to ensure clean production

E6[®] is especially suitable for high pressure and high temperature applications. In addition, E6[®] maintains excellent electrical properties, including dielectric constant and volume resistivity of E-glass.

Physical and Electrical Properties of E-glass and E6[®] Fibers:

Property	Testing method	Unit	E	E6 [®]
Density	ASTM C693	g/cm ³	2.60	2.62-2.63
Ref. strength	ASTM D1618	N/tex	4.566	4.556

Property Comparison between E-glass and E6[®] Fibers



E6[®] glass fiber is produced from a unique glass formulation, bringing significant improvement in chemical corrosion resistance in neutral, acidic or alkaline solutions. The improvement in corrosion resistance is especially significant in the acidic environments

E6[®] is therefore particularly suitable for the applications in corrosive environments, such as the environmental control devices and chemical, oil and desalination process pipes and tanks.





Item	Testing method	Unit	E	E6 [®]
Weight loss in acidic solution	Soaking in 30% HCl solution at 23°C for 24 hours	%	35.39	0.01
	Soaking in 0.025M Na ₂ CO ₃ at 23°C for 24 hours	%	0.16	0.24
Weight loss in alkaline solution	Soaking in 0.5M NaOH solution at 23°C for 24 hours	%	0.46	0.43
	Boiling in water at 100°C for 24 hours	%	0.53	0.39

Note: The above tested products have a uniform filament diameter.

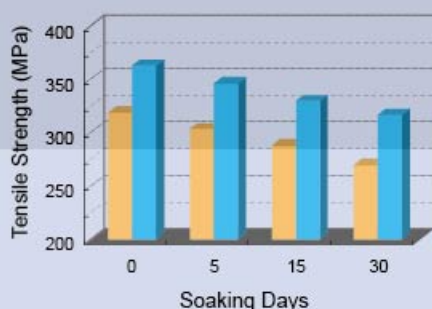
E6[®] REINFORCEMENTS

Open A New Era for Composites

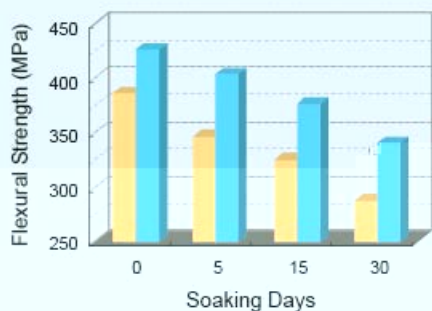
Performance Comparison of Laminates Soaked in Acid Solution

 E-glass  E6[®]

Comparison of longitudinal tensile strength of laminates soaked in 5% H₂SO₄



Comparison of longitudinal flexural strength of laminates soaked in 5% H₂SO₄



Superior mechanical properties

The use of E-glass reinforcements allows customers to design high performance composites beyond the limits of the polymer material itself. Jushi E6[®] glass fiber enables even higher composite performance. Compared with E-glass, composites based on E6[®] reinforcements have better mechanical properties including: tensile strength, elastic modulus, flexural strength, flexural modulus, shear strength and compressive strength. E6[®] Enhanced Glass Fiber has wide application fields in high performance composites, including: wind energy, high pressure vessels, geo-grids and sucker rods.

Test Sample	Property	Standard	E	E6 [®]
Tensile property of impregnated roving, Epoxy resin	Tensile strength (MPa)	ASTM D2343	1900~2000	2500~2700
	Tensile modulus (MPa)	ASTM D2343	73~75	81~83
1200 g/m ² UD fabric, (tested in 0° direction), Infusion process, Epoxy resin	Tensile strength (MPa)	ISO 527-5	/	1120.6
	Tensile modulus (MPa)	ISO 527-5	/	42.6
	Fiber Volume Content (%)	ISO 1172	/	53.6
	Tensile strength (MPa)	ISO 14126	/	805.5
	ensile modulus (GPa)	ISO 14126	/	42.9
	Fiber Volume Content (%)	ISO 1172	/	54.3 ^{1/2}





100%

100%

100%

100%



100%

100%



100%

100%

100%



ENVIRONMENTAL PROTECTION

Become a Model for Clean Production

Jushi Group is committed to improving our environmental footprint. We have invested heavily in the most modern technologies available to reduce pollutants in our air and water, and reduce waste.

E6[®] Enhanced Glass Fiber, is made with a glass formulation which significantly reduces air pollutants during manufacturing. Improved oxygen firing technology reduces total waste gas emissions from the furnace by 80% and the nitrogen oxides by 50%.

Our advanced water recycling technology enables zero discharge of industrial waste water from our process.

The Jushi development of **E6[®] Enhanced Glass Fiber** is consistent with our constant commitment to social responsibility and sustainability. Not only have we achieved the goal of improving our glass fiber products, but we also have improved our environmental footprint at the same time.

CUSTOMER AND TECHNICAL SUPPORT ORGANIZATION

Offer Best Technical Support

Jushi Group possesses world class core technologies and advanced testing and analysis capabilities for glass, organic chemistry, fiberglass and composites. We have established a global network of marketing and technical service professionals to help customers better understand our technical development and process optimization. We collaborate closely with customers to address their specific challenges and promote the growth of the composites industry.

We will share with you all the information on E6[®] glass fiber reinforcements as well as our considerable knowledge of compounding and molding technology and processes.



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