

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



GOALS

Enhance Product Performance

Expand Applications

Minimize Environmental Footprint

Increase Customer Satisfaction

With the rapid development of new applications, the design of fiberglass composite parts is becoming more and more demanding, requiring composite materials to deliver better performance, including increased strength, lighter weight, and enhanced corrosion resistance. Manufacturers and end users want products with long-term consistency and reliability.

To meet these demands, as well as to achieve clean production and minimize environmental footprint, Jushi Group initiated the development of **E6® Enhanced Glass Fiber** in July 2006. The development was successfully completed in 2008 and was commercially available in 2009. Compared with traditional E-glass fiber, Jushi **E6® Enhanced Glass Fiber** improves composite properties and has less impact on the environment during manufacturing.

Jushi **E6® Enhanced Glass Fiber** is a new E-glass fiber, with enhanced properties. It combines all the benefits of E-glass fiber with technical breakthroughs in improved strength, elastic modulus, temperature resistance, and acid corrosion resistance, thus meeting the requirements of the most demanding applications. **E6** provides Jushi Group with a complete new technology platform on which new solutions are developed for a wide range of applications for different end-use markets.

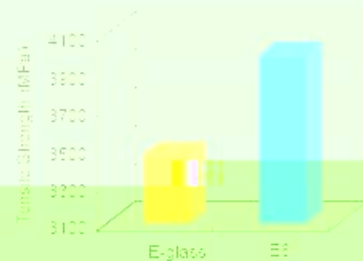


E6 Enhanced
Glass Fiber

REVOLUTIONARY NEW GLASS FIBER

Expands the Scope
of Composite Applications

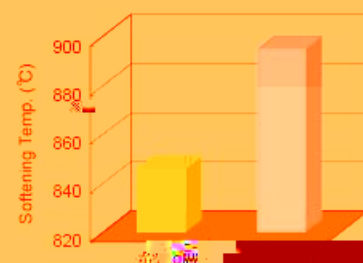
Property Comparison between E-glass and E6® Fibers



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

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
Compressive Modulus	ASTM D7016	GPa	1.565	1.565
Expansion Coefficient	ASTM D696	10 ⁻⁶ K ⁻¹	6.1	6.0
Softening Point	ASTM C338	°C	838	898
Elastic Modulus	ASTM E1876	GPa	72	81
Dielectric Constant (23°C, 1MHz)	ASTM D150	-	6.7	7.1

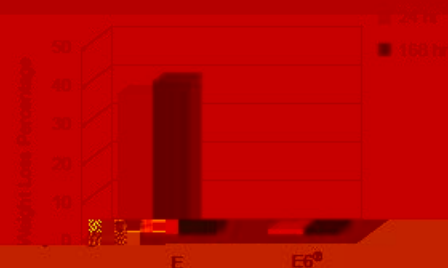


E6® glass fiber is produced with a unique glass formulation, providing significant improvement in chemical corrosion resistance in neutral, acidic or alkaline solutions. The improvement in corrosion resistance is especially significant in the acidic environments.

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 10%HCl solution at 23°C for 24 hours	%	18.39	0.08
Weight loss in alkaline solution	Soaking in 0.025M Na ₂ CO ₃ at 23°C for 24 hours	%	0.16	0.24
	Soaking in 0.5M NaOH solution at 23°C for 24 hours	%	0.46	0.43
Weight loss in boiling water	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

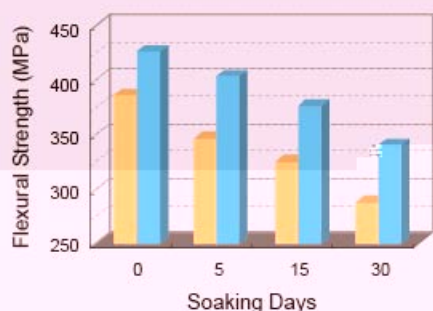
Performance Comparison of Laminates Soaked in Acid Solution

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





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.

...press waste glass fiber. Modern waste water purification technology
...yachlan zero discharge of industrial waste water from our

Offer Best Technical Support



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