

# FSC

## | Carbon Fiber Fabric

FIDTRONG's FSC Carbon Fiber Fabric, woven from strong 12k or 24k carbon fiber yarns, provides high strength and rigidity, suitable for many structural uses. Its features like corrosion resistance, flexibility, and dimensional stability add to its effectiveness. Its durability makes it a sustainable choice in construction.



### Specifications

Fabric weight	from 100 g/m <sup>2</sup> to 800 g/m <sup>2</sup> as requirement
Roll length	50 m or 100 m or cut to size
Roll width	100 / 200 / 300 / 600 mm depending on type
Tensile Strength (fiber yarn)	>4900MPa



Tensile Modulus (GPa) >240

Elongation >1.7%

### The commonly offered specifications

Item	Tensile Strength (Fiber Yarn)	Tensile Strength (Fabric)	Elongation	Length/Roll	Widths
FSC200	>5500MPa	>4000MPa	>1.7%	100 meter/roll	10/20/30/50cm
FSC230	>5500MPa	>4000MPa	>1.7%	100 meter/roll	10/20/30/50cm
FSC300	>5500MPa	>4000MPa	>1.7%	100 meter/roll	10/20/30/50cm
FSC530	>5500MPa	>3800MPa	>1.7%	50 meter/roll	30/50cm
FSC600	>5500MPa	>3800MPa	>1.7%	50 meter/roll	30/50cm

### Process Steps



Surface Preparation



Layout and Line Positioning



Epoxy preparation



Carbon Fiber Installation



Consolidation and Curing



Finishing and Surface Protection



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# FSE-322

## | Carbon Fiber Fabric Impregnated Epoxy

Our FSE 322 Impregnating Epoxy is a low viscosity adhesive with excellent impregnation properties and a desirable thixotropic nature. Specifically designed for impregnating and pasting reinforced component surfaces and fiber products, it serves as a crucial adhesive in CFRP systems.



### Properties

Packaging	30kg/set, 15kg/set, 6kg/set, 3kg/set
Color	light milk or yellow
Shelf Life	18 months (4 °C ~ 32 °C)
Mix Ratio	A:B = 2:1 by weight
Service Temperatures	+5 °C min. / +40°C max.
Operable time	>40 minutes
Tacky Dry Time (25°C)	1.5 hours
Curing Time (25°C)	3~7 days
Tensile strength	≥40 MPa
Ultimate elongation	≥1.5 %
Elastic modulus	≥2400 MPa
Comperssive strength	≥70.0 MPa
Steel-steel Bonding Strength	≥40 MPa
Steel-steel tensile shear strength	≥14 MPa
Steel-concrete tensile strengthe	>2.5 MPa (C60 concrete damage)

### Transportation and storage

Storage – Store in a dry, clean space with temperatures between -5°C and 40°C. Do not expose to direct sunlight or rain. Keep components A & B separate. If stored at room temperature (25°C), its shelf life is 18 months. If exceeded, test before use.

Transportation – These products are safe, non-flammable, and non-toxic. They can be transported like general cargo. Ensure epoxy containers are not damaged or exposed to sunlight or rain, and are not tilted or stored upside-down during transport.

# FSL

## | Carbon Fiber Laminate

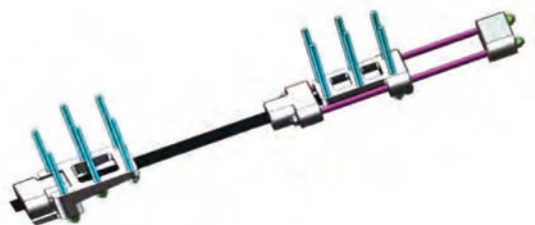
FIDTRONG's FSL Carbon Fiber Laminate is created using strong carbon fiber and high-quality epoxy resin in a high-temperature, advanced process. The outcome is a highly durable laminate, ideal for structural use, offering excellent load-bearing capacity, strength, and corrosion resistance.



### Specifications

Spec.	Size(thickness*Width)	Tensile Strength	Elastic Modulus	Length/Roll
FSL 1205	1.2mm*50mm	> 2800MPa	> 160GPa	100 meter/roll
FSL 1210	1.2mm*100mm	> 2800MPa	> 160GPa	100 meter/roll
FSL 1405	1.4mm*50mm	> 2800MPa	> 160GPa	100 meter/roll
FSL 1410	1.4mm*100mm	> 2800MPa	> 160GPa	100 meter/roll
FSL 2005	2.0mm*50mm	> 2800MPa	> 160GPa	100 meter/roll
FSL 2010	2.0mm*100mm	> 2800MPa	> 160GPa	100 meter/roll
FSL 2010	3.0mm*50mm	> 2800MPa	> 160GPa	100 meter/roll

FIDTRONG's FSL Carbon Fiber Laminate, used with FIDSTRONG prestressed anchors, helps buildings to manage weight proactively. When tensioned with the anchors, the laminate improves the building's load capacity and performance. This combined system is an efficient way to distribute weight in construction projects.



### Installation



Layout and Marking



Installation



Tensioning



Curing and Finishing

# FSE-362

## | Carbon Fiber Laminate Epoxy

FSE 362 is a specialized adhesive commonly used for bonding carbon fiber laminates in structural reinforcement applications. It is designed to provide high strength, durability, and excellent adhesion properties specifically tailored for bonding carbon fiber composites.



### Properties

Packaging	30kg/set, 15kg/set, 6kg/set
Color	Grey, White. Mixture: light grey.
Shelf Life	18 months (4 °C ~ 32 °C)
Mix Ratio	A:B = 3:1 by weight
Service Temperatures	+5 °C min. / +40°C max.
Operable time	150 minutes (10°C); 50 minutes (23°C); 40 minutes (30°C)
Consumption	3–4 kg/sqm
Thixotropic Index	4.0 min
Sagging Mobility (25°C)	2.0 max
Density after Curing	1.4 g/cm <sup>3</sup>
Tensile Strength (ASTM D638)	62 MPa
Tensile Modulus (ASTM D638)	8000 MPa
Elongation at Break (ASTM D638)	2.07 %
Compressive Strength	117 MPa

### Transportation and storage

Storage – Store in a dry, clean space with temperatures between –5°C and 40°C. Do not expose to direct sunlight or rain. Keep components A & B separate. If stored at room temperature (25°C), its shelf life is 18 months. If exceeded, test before use.

Transportation – These products are safe, non-flammable, and non-toxic. They can be transported like general cargo. Ensure epoxy containers are not damaged or exposed to sunlight or rain, and are not tilted or stored upside-down during transport.