

BYBoard-1.4 CF S



Carbon Fiber Laminate for structural strengthening

Product Description	BYBoard-1.4 CF S is a laminated design of pultruded carbon fiber reinforced polymer (CFRP), used for strengthening concrete, wood, and masonry structures, attached as external reinforcement to the structure.
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Application Range	■ Load Increase - Increased live loads in warehouses - Increased traffic volumes on bridges - Installation of heavy machinery in industrial building - Vibrating structures - Changes of building utilization ■ Seismic Strengthening - Column wrapping - Masonry walls ■ Damage to Structural Parts - Aging of construction materials - Vehicle impact - Fire - Blast impact ■ Change in Structural Parts - Removing of wall or columns - Removal of slab section for openings ■ Design or Construction Defects - Insufficient reinforcements - Insufficient structural depth
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Boyue Advantage

■ Aviation Grade Yarn

Produced from high-quality international aviation grade yarn, every carbon fiber yarn length kept over 5000 meters to ensure the continuity of the carbon fiber fabrics without damage raw fiber.

■ World Leading Production Line

Germany imported intelligent production line. Point to point active wefting insertion. No damage or break of filament during the whole production process.

■ Less Epoxy Adhesive Usage

The carbon fiber fabric is woven evenly and smooth, moderate soft, good suitability with the impregnated adhesive, which are easy to impregnate.

The total adhesive usage is just 15%, less than products by other manufacturers, and the hollow issues maintained at 80% less than other products.

■ Large Output and Timely Delivery

Annual production capacity of quality carbon fiber fabric is 5 million square meters, while maintaining a daily stock of over 100,000 square meter to meet any project's demands, around the world.

■ Technology Development

Non-grinding technology makes construction operations more convenient.

Technical Specifications

Model	Thickness	Strength Grade	Remarks
BYBoard-1.2 CF S	1.2mm	High strength Grade I	
BYBoard-1.2 CF	1.2mm	High strength Grade II	
BYBoard-1.4 CF ST	1.4mm	High strength Grade I	One side without polishing
BYBoard-1.4 CF S	1.4mm	High strength Grade I	
BYBoard-1.4 CF	1.4mm	High strength Grade II	
BYBoard-2.0 CF ST	2.0mm	High strength Grade I	One side without polishing
BYBoard-2.0 CF S	2.0mm	High strength Grade I	
BYBoard-2.0 CF	2.0mm	High strength Grade II	

Model	BYBoard-1.4 CF S
Appreance	Black board material
Length	100m
Width	Standard widths are 50mm, 100mm, and other widths can be customized.
Thickness	1.4mm
Shelf Life	10 years
Storage Conditions	Store in dry conditions at 40°F to 95°F (4°C to 35°C)
Package	The product is packaged in cardboard boxes. When the width is 50mm and 100mm, the total area of carbon fiber per box is 10 m ² .

PRODUCT SPECIFICATIONS	UNIT OF MEASURE	SPECIFIED RANGE	TEST METHOD
Carbon Fiber Model: 12K High-Strength Carbon Fiber			
The following displays the performance of carbon fiber.			
Sizing Agent Content	%	0.6~1.2	GB/T 29761-2013
Density	g/m ³	1.78~1.82	GB/T 30039-2013
Number of Filament		12K	
Linear Density	g/km	780~820	GB/T 3362-2017
Tensile Strength	MPa	≥4900	GB/T 3362-2017
Discrete Coefficient (C.V.) of Tensile Strength	%	≤6	GB/T 3362-2017
Tensile Modulus	GPa	220~260	GB/T 3362-2017
Elongation at Break	%	≥1.8	GB/T 3362-2017

PRODUCT SPECIFICATIONS	UNIT OF MEASURE	SPECIFIED RANGE	TEST METHOD
The following displays the performance of the fabric.			
Tensile Strength (Standard value)	MPa	≥ 2400	GB 50728-2011
Tensile Modulus of Elasticity	GPa	≥ 160	GB 50728-2011
Elongation at Break	%	≥ 1.6	GB 50728-2011
Interlaminar Shear Strength (Average value)	MPa	≥ 50	GB 50728-2011
Positive Tensile Bond Strength Between FRP and Substrate (Average value)	MPa	For concrete and brick base: ≥ 2.5 For steel base: ≥ 3.5 And it must not be adhesive failure	GB 50728-2011
Fiber volume content	%	≥ 65	GB 50728-2011

Transportation and Storage

This product should be stored in a dry, cool and well ventilated environment. It should not be exposed to rain, or subjected to impact by sharp objects.

During transportation and storage, carbon fiber materials shall not be squeezed or compressed, so as to avoid carbon fiber damage, and shall not be exposed to direct sunlight and/or rain.

Safety Measures

The construction workers should take all necessary protective measures (such as wearing masks, gloves, goggles, etc.). Safety measures should be taken on site to keep the site clean and prevent fire hazards.

Carbon fiber is conductive, safety measures should be taken to prevent electric shocks.

Carbon fiber sheets should not be bent during transportation, handling, and cutting process.

Headquarters

Boyue New Technology Co., Ltd.

Address: No. 116, Building 36, Chentian Industrial Zone, Bao'an District, Shenzhen, China

Zip Code: 518100

Sales Hotline: +86-13586429808

Email: boyuenewtech@gmail.com

For more information, please visit our website at
boyuenewtech.com



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