FRP HOME
CARBON & COMPOSITE MATERIALS

TECHNICAL DATA SHEET

600gsm +45/-45 Biaxial Carbon NCF

Balanced non-crimp reinforcement for shear and torsional loading

SUPPLIER / BRAND	ZHEJIANG FRPHOME NEW MATERIAL CO., LTD.
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600gsm +45/-45 Biaxial Carbon NCF

Balanced non-crimp reinforcement for shear and torsional loading

A heavy, balanced +45/-45 stitched carbon non-crimp fabric with two 300 g/m2 carbon layers. The straight-fiber architecture is intended for efficient shear and torsional reinforcement in vacuum infusion, RTM and other dry-fabric composite processes.

ARCHITECTURE	CARBON WEIGHT	WIDTH	ROLL
+45 / -45	600 g/m2	1270 mm	50 m

NOMINAL PRODUCT DATA

Property	Nominal / typical value	Quotation status
Construction	Balanced biaxial carbon NCF, +45 / -45	Nominal
Carbon fiber areal weight	600 g/m2	Nominal; tolerance by order
Total dry fabric weight	Approx. 608-612 g/m2 including stitch yarn	Typical guidance
Layer distribution	+45: 300 g/m2; -45: 300 g/m2	Nominal
Carbon fiber	12K preferred; 24K by agreement	Confirm grade and sizing
Stitch yarn	PES 75D (approx. 83 dtex) or equivalent	Typical; equivalent by review
Stitch gauge / length	E5; approx. 3.2 mm stitch length	Typical; customizable
Nominal width	1270 mm	Tolerance by order
Nominal roll length	50 m	Confirm usable length and splice policy
Indicative dry thickness	Approx. 0.55-0.85 mm	Method and pressure dependent
Typical moisture control target	<=0.30% by mass	Confirm COA requirement

THEORETICAL ROLL QUANTITIES

Quantity	Planning value	Basis
Theoretical area	63.5 m2	1.27 m x 50 m
Carbon fiber net mass	38.10 kg	63.5 m2 x 600 g/m2
Dry fabric mass including stitch	Approx. 38.6-38.9 kg	Excludes core and packaging

TYPICAL APPLICATIONS

Shear webs and torsion shells • Marine and automotive composite structures • Large infused panels • Industrial composite tooling • Sporting goods and structural repair laminates

HANDLING AND QUOTATION NOTES

- Keep rolls sealed, dry, clean and protected from crushing, telescoping and edge damage.
- Control +45/-45 shear distortion during cutting and lay-up; validate permeability and fill time with the selected resin stack.
- Confirm fiber grade, sizing, width tolerance, roll length, splice policy, packaging, COA items and end use before order release.
- Dry-fabric data are not cured-laminate mechanical design allowables; validate the resin, cure, fiber volume and laminate design for the final part.

Data basis: Prepared from the customer-provided 600 g/m2 +45/-45 biaxial carbon NCF technical record dated 17 July 2026. Source-company branding was removed; nominal and typical construction data were retained with FRP HOME order-confirmation language. This sheet is not a batch certificate or independent test report.

The values in this sheet are typical or nominal reference values, not a batch certificate or finished-laminate design allowables. Final specification, tolerances, test methods, resin compatibility, compliance review and COA requirements must be confirmed in the quotation and order documents.