KREVO Carbon Wrap C-300

High-StrengthUunidirectional Carbon Fibre Fabric | Structural strengthening

PRODUCT DESCRIPTION

KREVO Carbon Wrap C-300 is described here as a high-strength unidirectional carbon fibre sheet intended for use as externally bonded reinforcement to structural members. Applied with a compatible Krevo Prime EP and Krevo Carbon lamination EP, the fabric is used for strengthening against tensile, shear and impact forces. The fabric is black in colour.

ADVANTAGES

- Lightweight and easy to apply.
- Simple application to square or curved members.
- High strength-to-weight ratio.
- For impact- and blast-resistance strengthening applications, subject to engineering design.
- May be used with pultruded CFRP plates for combined strengthening and reinforcement.

TYPICAL USES

External reinforcement for structural strengthening of beams • columns • slabs • tunnels • circular, curved and complicated structural details.

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Material type	Unidirectional carbon fibre reinforcement fabric
Appearance	Black
Fabric sheet weight	300 g/m^2
Carbon content	98%
Net effective thickness	0.166 mm
Roll packaging	500 mm × 100 m rolls

MECHANICAL PERFORMANCE SPECIFICATION

PROPERTY	VALUE
Modulus of elasticity	240 GPa
Tensile strength	4,000 MPa
Elongation at break	2%

Application & System Data

KREVO Carbon Fabric | Substrate preparation, priming and fibre lay-up

TYPICAL SYSTEM BUILD-UP

LAYER	MATERIAL / METHOD
1 | Substrate	Sound concrete surface, cleaned and prepared to receive structural reinforcement
2 | Surface primer	KREVO Prime EP
3 | Lamination adhesive	KREVO Carbon Lamination EP
4 | Carbon fibre fabric	KREVO Carbon Wrap C-300 laid onto wet laminating resin
5 | Further layers	Additional resin and carbon fibre layers as structurally specified
6 | Protective coating	Compatible protective/decorative coating after full cure

SURFACE PREPARATION

Clean and mechanically prepare the structural substrate by sandblasting, grit blasting, grinding or a suitable equivalent. Remove dust, grease, oil, surface coatings and all other contamination. The surface must provide an adequate mechanical key for bonding.

Check prepared substrate level with a 300 mm straightedge. The KREVO Carbon Fabric reference specifies no more than 1 mm deviation over 300 mm in any direction. Grind sharp arrises to a radius of at least 20 mm. Establish substrate condition and conduct adhesion testing over a trial area before installation.

PRIMING

Prime the prepared surface with KREVO Prime EP, mixed and applied according to the selected complete strengthening system and its approved method statement.

LAMINATING / WET LAY-UP PROCEDURE

- Mix and apply the adhesive KREVO Carbon Lamination EP in accordance with its current approved instructions.
- Immediately lay KREVO Carbon Wrap C-300 onto the fresh wet resin in the fibre direction required by the structural design.
- Press the sheet into position with a suitable hand lay-up roller to achieve intimate contact and expel trapped air.
- For additional layers, repeat the resin and fabric process; provide sufficient resin to completely wet out every subsequent fabric layer.
- Allow the system to fully cure before applying any specified decorative or protective finish.

APPLICATION QUALITY CONTROL

The engineer-approved strengthening design and project method statement shall govern fibre orientation, number of layers, anchorage, lap details, adhesion acceptance and curing. Installation must be carried out by trained personnel using appropriate tools.

Installation & Product Support

KREVO Carbon Fabric | Packaging, storage, cleaning, safety and contacts

PACKAGING & STORAGE

PARAMETER	SOURCE-REFERENCE INFORMATION
Roll size	500 mm wide × 100 m long
Storage conditions	Keep dry and protected from direct sunlight
Shelf life	KREVO Carbon Wrap C-300 describes an unlimited shelf life under dry

CLEANING

Clean tools immediately with a proprietary solvent-based cleaner before the epoxy resin hardens. Once the resin is cured it normally can only be removed by mechanical means.

HEALTH, SAFETY & ENVIRONMENT

Intended for industrial use by trained personnel. Review the current material Safety Data Sheets for the actual carbon fabric and its primer / resin system before purchase or use. Use appropriate protective clothing, gloves and eye protection. Employ dust controls when cutting or handling fabric, provide ventilation, and dispose of waste in accordance with applicable requirements.

INSTALLATION LIMITATIONS & DESIGN NOTES

- Do not apply to unsound, contaminated or inadequately prepared surfaces.
- Do not install fabric without a fully compatible approved primer and laminating resin.
- Fibre orientation, number of layers, overlap and termination details must be confirmed by a qualified structural engineer.
- Fully wet each layer and allow the completed resin system to cure before applying finish coats or loading.

KREVO | GLOBAL CONTACTS

ENGLAND

10 Shipley Avenue, Fenham
Newcastle upon Tyne
England NE4 9RA
+44 7436 650806
info@krevo.uk
krevo.uk

UNITED STATES

9209 S. Aeva Avenue
Evergreen Park, IL 60805
+1 (773) 996-0846
info@krevo.us
krevo.us

CHINA

Office 235, 4th Floor
No. 5 Inner
China
+86 139 5536 3625
krevo.cn