



DRI-PLATE CF 50-14

Unidirectional carbon fiber laminate for structural strengthening

A high strength and high modulus unidirectional carbon fiber laminate. It is bonded onto the structure as an external reinforcement using Dri-Poxy epoxy resins as the adhesive.

FEATURES/BENEFITS

- High strength, high toughness, high modulus
- Soft and flexible
- Easy installation & light self-weight
- Non-corroding & excellent durability
- Resistant to high temperatures, acid, alkali & salt
- Seismic resistance

APPLICATION AREAS

- Structures which require increase in loads or traffic weight
- Areas which require improvement of structural condition
- Seismic retrofitting
- Ageing / Damaged structures
- Structural alterations / changes
- Rectification of design or construction errors
- Shear / confinement / flexural strengthening

PRODUCT DATA

Shelf Life	10 years
Storage Condition	Store in dry conditions at 4 – 35°C

TECHNICAL DATA

Appearance	Black laminate
Width	50 mm
Length	100 m
Braiding	0° (Unidirectional)
Thickness	1.4 mm
Tensile Strength	3044 MPa
Tensile Modulus	158 GPa
Elongation at Break	0.0177
Flexural Strength	2120 MPa

Temperature Resistance	> 150°C
Fiber Content	≥ 65%
Density	1.6 g/cm ³

SUBSTRATE

The substrate pull-off strength should be of an average of 2.0 N/mm², with no single spot below 1.5 N/mm². The effective concrete pull-off strength after surface preparation should be verified. If concrete pull-off strength is below the minimum requirement, alternate repair methods may be adopted instead. Please contact Dritech Chemicals Sdn. Bhd. for more information.

Concrete must be cleaned and prepared to achieve a laitance- and contaminant-free, open-textured surface.

For applications of Dri-Plate CF 1.4 to all other substrates, e.g. brick, stone, steel, wood, fiber-reinforced polymer, etc., please contact Dritech Chemicals Sdn. Bhd. for more information.

APPLICATION METHOD & TOOLS

Apply the suitable Dri-Poxy epoxy onto Dri-Plate CF 1.4 evenly while avoiding air bubbles and proceed to paste Dri-Plate CF 1.4 onto concrete surface and fix with steel strip. Remove any extra epoxy near the plate and fix with steel framework. Please refer to the relevant Method Statement for further information.

TRANSPORTATION & STORAGE

This product should be stored in a dry, cool and well-ventilated environment. It should not be exposed to rain or be subjected to impact by sharp objects. During transportation and storage, Dri-Plate CF 1.4 shall not be squeezed or compressed to avoid carbon fiber damage. It shall not be exposed to direct sunlight and/or rain.

LIMITATIONS

- Dri-Plate CF 1.4 shall be applied by trained and experienced professionals, and a specialist structural engineer must be consulted for any structural strengthening design calculation.
- Dri-Plate CF 1.4 must be protected from permanent exposure to direct sunlight, moisture and/or rain. It may be overcoated with a suitable protective coating system in situations whereby Dri-Plate CF 1.4 will be fully or partially exposed.

HEALTH & SAFETY

For information & advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTE

The information, and, in particular, the recommendations relating to the application and end-use of these products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance to the manufacturer recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. The manufacturer reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned copies of which will be supplied on request.