

Tyfo® UC 65HM

Composite Laminate Strip System

DESCRIPTION

Tyfo® UC 65HM Composite Laminate Strip System is a pitch based high modulus carbon fiber reinforced plastic (CFRP).

USE

For post-reinforcing of general building construction, industrial buildings, parking structures, bridges and other structures constructed of concrete, steel and cast iron.

ADVANTAGES

- Tensile modulus two times that of steel
- Efficient methodology for deflection control
- Consistent material properties
- Ease of installation
- No significant weight increase to structure

COVERAGE

Surface area coverage for Tyfo® UC 65HM Composite Laminate Strips is dependent on the width and length ordered (see "Available Widths and Thicknesses for Tyfo® UC 65HM Composite Laminate Strips").

PACKAGING

Tyfo® UC 65HM Strips are available in 20 foot lengths.

SHELF LIFE

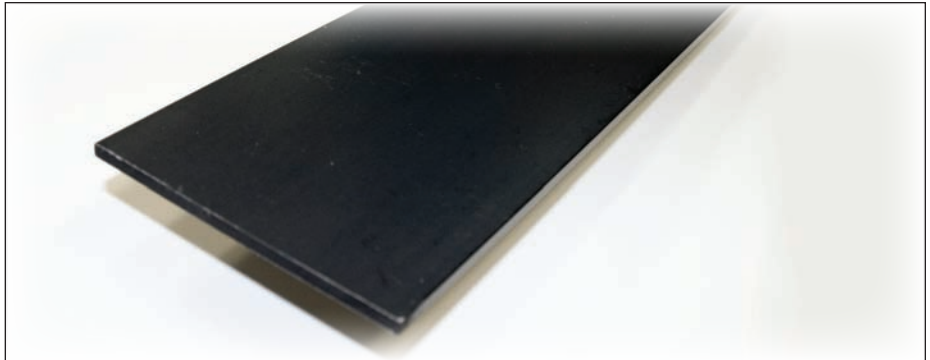
Two years in proper storage conditions.

STORAGE CONDITIONS

Store in a dry location at 40° to 90° F (4° to 32° C). Avoid freezing. Avoid direct sunlight.

CERTIFICATE OF COMPLIANCE

- Will be supplied upon request, complete with state and federal packaging laws with copy of labels used.
- Material safety data sheets will be supplied upon request.



COMPOSITE GROSS LAMINATE PROPERTIES		
PROPERTY	ASTM METHOD	TYPICAL TEST VALUE
Ultimate tensile strength in primary fiber direction, psi	EN2561	174,000 x 10 ⁶ psi (1200 MPa)
Elongation at break	EN2561	0.27%
Tensile Modulus, psi	EN2561	65,000 ksi (450 GPa)
Layer Thickness		Varies

* Design and specification values will vary based on individual project requirements and applicable safety factors. Contact Fyfe Co. LLC engineers to determine appropriate specification values.

HOW TO USE THE TYFO® UC 65HM STRIP SYSTEM

DESIGN

The Tyfo® System shall be designed to meet specific design criteria. The criteria for each project is dictated by the engineer of record and any relevant building codes and/or guidelines. The design should be based on the allowable strain for each type of application and the design modulus of the material. The Fyfe Co. LLC engineering staff will provide preliminary design information at no obligation.

INSTALLATION

Tyfo® UC 65HM System to be installed by Fyfe Co. LLC trained and certified applicators. Installation shall be in strict compliance with the Fyfe Co. LLC Quality Control Manual.

SURFACE PREPARATION

The surface to receive the Tyfo® UC 65HM Composite Laminate Strip must be sound and prepared for bonding by means of abrasive methods. Typically, light sandblasting, grinding or other approved methods are acceptable. The surface should be free of protrusions or cavities. The Fyfe Co. LLC engineering staff will provide the proper specifications and details based on the project requirements. Bond strength to substrate can be verified by ASTM D-4541-95.

APPLICATION

Proper installation of high modulus CFRP strips depends on both the design and the substrate. In addition, proper detailing to prevent galvanic corrosion when adhered to steel is required. Detailed installation instructions will be provided by Fyfe Company engineers during the design process.

ADHESIVE RESIN

Proper selection of the adhesive resin is project-dependant. The Fyfe Co. LLC engineering staff will make a recommendation based on the individual requirements.

AVAILABLE WIDTHS AND THICKNESSES FOR TYFO® UC 65HM STRIPS

Thickness: 0.076" (2mm) or 0.16" (4mm) *
Widths: 2.0" (50.8mm), 4.0" (101.6mm), and 5.5" (139.7mm) *

* Other thicknesses and widths are available.

DESIGNATIONS

Laminate strips are designated by the width then the thickness in mils. Example - 2" wide, 0.076-inch thick laminate would be designated as "2UC76HM65."

CAUTION!

EPOXY PRECAUTIONS

COMPONENT A - Irritant: Prolonged contact to the skin may cause irritation. Avoid eye contact.

COMPONENT B - Irritant: Contact with skin may cause severe burns. Avoid eye contact. Product is a strong sensitizer. Use of safety goggles and chemical resistant gloves recommended. Remove contaminated clothing. Avoid breathing vapors. Use adequate ventilation. Use of an organic vapor respirator recommended.

LAMINATE PRECAUTIONS

Use caution when uncoiling roll. Use of an approved particle mask is recommended for possible airborne particles. Gloves are recommended when handling strips to avoid skin irritation. Safety glasses are recommended to prevent eye irritation.

FIRST AID

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water; contact physician immediately. For respiratory problems, remove to fresh air. Wash clothing before reuse.

CLEANUP

Collect with absorbent material, flush with water. Dispose of in accordance with local disposal regulations. Uncured material can be removed with approved solvent. Cured materials can only be removed mechanically.

SHIPPING LABELS CONTAIN

- State specification number with modifications, if applicable
- Component designation
- Type, if applicable
- Manufacturer's name
- Date of manufacture
- Batch name
- State lot number, if applicable
- Directions for use
- Warnings or precautions required by law

**NOT FOR INTERNAL CONSUMPTION.
CONSULT MATERIAL SAFETY DATA SHEET
(MSDS) FOR MORE INFORMATION.
KEEP OUT OF REACH OF CHILDREN.
FOR INDUSTRIAL USE ONLY.**

Fyfe Co. LLC

"The Fibrwrap® Company"

Nancy Ridge Technology Center

6310 Nancy Ridge Drive, Suite 103, San Diego, CA 92121

Tel: 858.642.0694 Fax: 858.642.0947

E-mail: info@fyfeco.com Web: <http://www.fyfeco.com>

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