# Toray CFRT® BW-1000 Reemay



## **Toray Performance Materials Corporation**

#### PRODUCT DATA SHEET

### **DESCRIPTION**

Toray PMC CFRT® (BW-1000/Reemay) is a reinforced thermoplastic composite laminate. It blends the benefits of a thermoplastic polymer matrix with woven carbon and glass fibers in a basket weave for enhanced shapes and performance. The BW-1000/Reemay style laminate is available in a dual-layer product; carbon in one direction and glass fibers in at a 90° orientation to carbon laminated over a layer of polyester fiber. The BW-1000/Reemay laminate is thin, lightweight, and resilient for improved energy return.

#### **FEATURES**

- Basket weave of carbon and glass fibers
- Bi-directional reinforcement with additional polyester fiber layer
- Lightweight, thin, dual-layer
- Available in various colors



#### PRODUCT TYPE AND COMPOSITION

Carbon fiber content: 22%
Glass fiber content: 22%
Polyester fiber content: 9%
Modified PMMA thermoplastic resin: 47%
(Noted: Percentages are by volume and are nominal values)

#### **TYPICAL APPLICATIONS**

- Footwear
- Recreational equipment
- Skates

# **MATERIAL PARAMETERS**

Specific Gravity	$1.6 \pm 0.15$ (calculated based upon material volume)	
Thickness	1.20 mm (± 0.2 mm)	
Size	Cut to customer specifications from sheet of 91 x 122 cm (36 x 48 inches)	
Standard Colors	Silver, Charcoal, and Black	
Forming Temperature	195° to 200°C (383°F-392°F)	
Bonding Temperature	55°C to 60°C (131°F–140°F)	

### SHELF LIFE

Stable indefinitely at 25°C (77°F)

Materials must be dried prior to heating and thermoforming. Please refer to the TPMC Processing Instructions.



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Cost (Rated on a scale of 100)

#### **MECHANICAL PROPERTIES**

Properties	Method	Results
Flexural Rigidity	ASTM D790-10	> 85 N-cm
Flexural Strength	ASTM D790-10	> 170 MPa
Flexural Modulus	ASTM D790-10	> 7000 MPa

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