# Toray CFRT® BW-1000



# **Toray Performance Materials Corporation**

#### PRODUCT DATA SHEET

### **DESCRIPTION**

Toray PMC CFRT® (BW-1000) 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 performance. The BW-1000 style laminate is available in a single-layer product; carbon in one direction and glass fibers at a 90° orientation to the carbon that is ultra-thin, lightweight, and resilient for improved energy return.

#### **FEATURES**

- Basket weave of carbon fibers and glass fibers
- Bi-directional reinforcement
- Lightest weight, thin, single layer
- Available in various colors



## PRODUCT TYPE AND COMPOSITION

Carbon fiber content: 30% Glass fiber content: 30% Modified PMMA thermoplastic resin: 40% (Noted: Percentages are by volume and are nominal values)

#### TYPICAL APPLICATIONS

- Footwear
- Recreational equipment
- Skates

#### **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.

## **MATERIAL PARAMETERS**

Specific Gravity	$1.3 \pm 0.15$ (calculated based upon material volume)	
Thickness	1.0 mm (± 0.2 mm) nominal	
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)	

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Cost (Rated on a scale of 100)

#### **MECHANICAL PROPERTIES**

Properties	Results	
Flexural Rigidity	ASTM D790-10	> 55 N-cm
Flexural Strength	ASTM D790-10	> 188 MPa
Flexural Modulus	ASTM D790-10	> 6200 MPa

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