# Toray CFRT® AG-24 2L



# **Toray Performance Materials Corporation**

## PRODUCT DATA SHEET

## **DESCRIPTION**

Toray PMC CFRT® (AG-24 2L) is a reinforced thermoplastic composite laminate. It blends the benefits of a thermoplastic polymer matrix with woven glass fibers in a plain weave for enhanced and performance. The AG-24 2L style laminate is a dual-layer product with glass fibers in both directions (0° & 90°). This construction is ultra-thin, lightweight, and resilient for improved energy return.

#### **FEATURES**

- > Plain weave of glass fibers
- > Bi-directional glass reinforcement
- > Lightest weight, thin, multiple layers
- > Standard Colors: Black, Silver, and Charcoal



### PRODUCT TYPE AND COMPOSITION

Glass fiber content: 55% Modified PMMA thermoplastic resin: 45% (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	$1.7 \pm 0.15$ (Calculated based upon material volume)	
Thickness	1.15 mm (± 0.2 mm)	
Standard Colors	Silver, Charcoal, and Black	
Size	Cut to customer specifications from sheet of 91 x 122 cm (36 x 48 inches)	
Forming Temperature	195°C 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	Method	Results: 4 tow per inch	Results: 5 tow per inch
Flexural Rigidity	ASTM D790-10	208 N-cm*	285 N-cm*
Flexural Strength	ASTM D790-10	367 MPa*	506 MPa*
Flexural Modulus	ASTM D790-10	13850 MPa*	20475 MPa*

<sup>\*</sup>Performance results are based on 1.20 mm material thickness. Results will vary depending upon material thickness.

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