

PRODUCT DATA SHEET

DESCRIPTION

Toray PMC CFRT® (TL-Silver) is a reinforced thermoplastic composite. It blends the benefits of a thermoplastic polymer matrix with woven glass fibers for enhanced performance. TL-Silver is available in two material grades (Semi-Rigid and Rigid) and in five standard sizes to cover the full range of orthotic requirements.

FEATURES

- › Low-cost premium orthotic materials
- › Excellent orthosis comfort
- › Functional biomechanic control
- › Excellent formability for a deep cut heel
- › Available color: Silver



PRODUCT TYPE AND COMPOSITION

SEMI-RIGID

Glass fiber content: 39%

Modified PMMA thermoplastic resin: 61%

RIGID

Glass fiber content: 31%

Modified PMMA thermoplastic resin: 69%

(Note: Percentages are by volume and are nominal values)

MATERIAL PROPERTIES

	SEMI-RIGID	RIGID
Specific Gravity	1.4	1.4
Thickness	2.35 ± 0.2 mm	2.80 ± 0.2 mm
Standard Colors	Silver	
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)	

TYPICAL APPLICATIONS

- › Foot Supports
- › Orthotics
- › Preforms

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.

MECHANICAL PROPERTIES

Properties	Method	Results	
		Semi-Rigid*	Rigid**
Flexural Rigidity	ASTM D790-10	~ 1130 N-cm	~ 1450 N-cm
Flexural Modulus	ASTM D790-10	~ 8.5 GPa	~ 7.5 GPa
Flexural Strength	ASTM D790-10	> 240 MPa	> 250 MPa

*Tested at 2.49 mm thickness

**Tested at 2.78 mm thickness

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