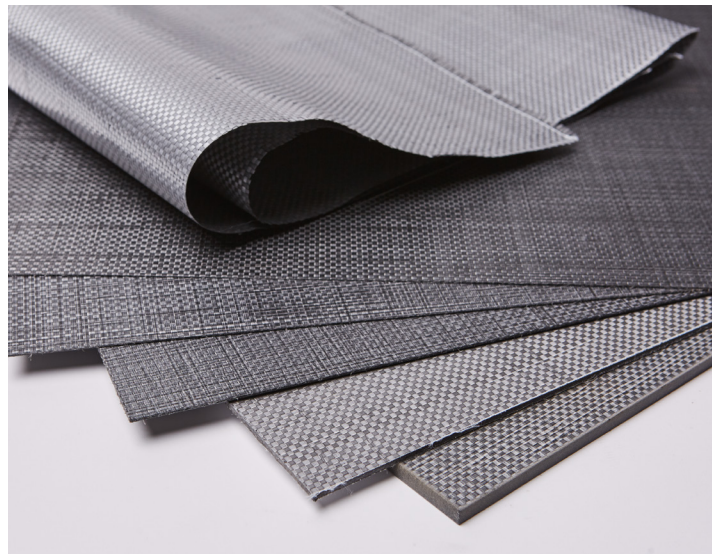


Tegris® thermoplastic composites provide impact resistance and stiffness at a lighter weight than traditional thermoplastics and composites. Tegris composites are woven from specially engineered tape, which is manufactured with three polymer layers in an ABA construction. The outer, or 'A' layers melt at a lower temperature than the core 'B' layer. To consolidate, multiple layers of fabric are stacked together and heat and pressure are applied to form a rigid, impact-resistant part.

- ▼ **Lightweight construction without sacrificing protection**
- ▼ **Water and chemical resistance helps protect in many conditions**
- ▼ **Cold-temperature impact resistance that outperforms most thermoplastics and composites**
- ▼ **Engineered for applications that need high stiffness**
- ▼ **Fully recyclable material**
- ▼ **Unique aesthetic in various thicknesses depending on desired performance**



General Product Information

- ▼ **Available in Coyote and Grey/Silver**
- ▼ **Plain, twill or herringbone weaves, with custom options available**
- ▼ **Standard sheet sizes 48" (122 cm) wide by up to 120" long (305 cm)**



Typical Tegriss® Materials Properties

TAPE	Test	Average	ASTM Method
	Tensile Modulus	14.0 GPa	ISO 527
	Shrinkage (130°C)	< 5.5%	D4974
	Sealing Temperature	120°C	Milliken Method
	Denier	1020	D1577

FABRIC	Test	Warp	Fill	ASTM Method
Thickness 0.40 mm Areal Density 98 gsm (3.0 osy) Standard Roll Width 127 cm (50 in)	Peak Load	720 N (160 lbf)	660 N (150 lbf)	D5035, 1" Strip
	Elongation at Break	7.8%	7.1%	D5035, 1" Strip
	Tapes/inch	11	11	D3775

CONSOLIDATED SHEET	Test	Average	ASTM Method
Properties vary with pressing conditions	Bulk Density	0.78 g/cm³	D792
	Thickness	0.125 mm/layer (0.005 in/layer)	
	Strength	200 MPa (30 kpsi)	
	Modulus	5-6 GPa (720-870 kpsi)	
	Elongation at Break	6%	
	Flexural Modulus	5-6 GPa (720-870 kpsi)	D790
	Heat Deflection Temp, 1820 kPa	95 °C	D648
	Heat Deflection Temp °C, 455 kPa	130 °C	D648
	CTE (-60 to +40°C)	6 x 10 ⁻⁶ / °C	D696
	CTE (-60 to +40°C)	3 x 10 ⁻⁶ / °F	D696
	Gardner Dart Impact, -40°C	24.7 J (33.6 ft-lb)	D5420
	Gardner Dart Impact, 20°C	24.5 J (33.3 ft-lb)	D5420
	Notched Izod Impact	4.8 kJ/m (90 ft-lbf/i)	

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