

## Bond Laminates TEPEX® dynalite 408-C200(2)-FG290(2)/45% Carbon – Filament Glass – TPU Consolidated Composite Laminate

Category : Polymer , Thermoplastic , Polyurethane, TP , Thermoplastic Polyurethane (TPUR), Carbon Fiber Reinforced

### Material Notes:

Within the TEPEX® composite laminate, TPU distinguishes itself from alternative resin systems by its specific physical properties. The TPU resin is tough which results in an excellent impact and fatigue behavior and is easy to mold, obtaining an excellent surface quality. The TPU-carbon-glass laminates can easily be bonded with common adhesive systems. An excellent adhesion is achieved when overmolding with injection molding TPU grades. Typical application environments are within automotive applications, large structural parts, bumper systems, structural sporting goods applications, helmet shells. Information provided by Bond Laminates, GmbH.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Bond-Laminates-TEPEX-dynalite-408-C2002-FG290245-Carbon-Filament-Glass-TPU-Consolidated-Composite-Laminate.php](http://www.lookpolymers.com/polymer_Bond-Laminates-TEPEX-dynalite-408-C2002-FG290245-Carbon-Filament-Glass-TPU-Consolidated-Composite-Laminate.php)

Physical Properties	Metric	English	Comments
Density	1.65 g/cc	0.0596 lb/in <sup>3</sup>	
Filler Content	45 %	45 %	by volume
Thickness	1000 microns	39.4 mil	laminate layer thickness

Mechanical Properties	Metric	English	Comments
Flexural Strength	705 MPa	102000 psi	longitudinal; ISO 178
	705 MPa	102000 psi	transverse; ISO 178
Flexural Modulus	40.0 GPa	5800 ksi	transverse; ISO 178
	40.5 GPa	5870 ksi	longitudinal; ISO 178

Thermal Properties	Metric	English	Comments
Melting Point	190 °C	374 °F	DSC 3146
Maximum Service Temperature, Air	90.0 °C	194 °F	Relative Temperature Index; IEC 216/1
	@Time 7.20e+7 sec	@Time 20000 hour	
Deflection Temperature at 1.8 MPa (264 psi)	185 °C	365 °F	ISO 75-1/2
Minimum Service Temperature, Air	-30.0 °C	-22.0 °F	

Processing Properties	Metric	English	Comments
Processing Temperature	210 - 230 °C	410 - 446 °F	

Descriptive Properties	Value	Comments
Reinforcement	Area weight	200 and 290 g/m <sup>2</sup>
	Fabric	twill 2/2
	Fibers	carbon and filament glass
	Weight Rate	50% longitudinal and transverse
	Yarn	3000/3x68 tex longitudinal and transverse

## Contact Songhan Plastic Technology Co.,Ltd.

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