# **Vexel 4150**

## Polybutylene Terephthalate

#### **Custom Resins Group**

#### Message:

Vexel 4150 is a 15% glass reinforced polybutylene terephthalate polyester material. Vexel products have exceptional electrical properties, are quite strong, and are especially stiff, but are typically more brittle than similar nylon products. Vexel PBT is typically used for electrical components, especially with higher voltage requirements, for high heat housings and brackets, and for other functional components where the moisture absorption of nylon may be problematic.

General Information				
Filler / Reinforcement	Glass Fiber,15% Filler by Weight			
Features	Good Electrical Properties			
	Good Stiffness			
	High Heat Resistance			
	High Strength			
Uses	Electrical Housing			
	Electrical Parts			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.41	g/cm³	ASTM D792	
Molding Shrinkage			ASTM D955	
Flow	0.40 to 0.60	%		
Across Flow	0.50 to 0.80	%		
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength	89.6	MPa	ASTM D638	
Flexural Modulus	4480	MPa	ASTM D790	
Flexural Strength	138	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact	48	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load			ASTM D648	
0.45 MPa, Unannealed	207	°C		
1.8 MPa, Unannealed	188	°C		
Melting Temperature	227	°C		
Injection	Nominal Value	Unit		
Drying Temperature	121 to 138	°C		
Drying Time	2.0 to 4.0	hr		
Drying Time, Maximum	4.0	hr		

Suggested Max Moisture	0.040	%
Suggested Shot Size	30 to 80	%
Suggested Max Regrind	25	%
Rear Temperature	232 to 249	°C
Middle Temperature	238 to 254	°C
Front Temperature	243 to 266	°C
Nozzle Temperature	249 to 282	°C
Processing (Melt) Temp	243 to 266	°C
Mold Temperature	54.4 to 107	°C
Injection Pressure	68.9 to 124	MPa
Injection Rate	Moderate-Fast	
Holding Pressure	55.2 to 96.5	MPa
Back Pressure	0.00 to 3.45	MPa

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## Recommended distributors for this material

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