

# Vectra® B 30% Reinforced Glass Fiber Rod

**Formula:** Liquid Crystal Polyester - 30% GFR

**Diameter:** 10.7mm

**Length:** 500mm

**UOM Code:** 027-019-54

**SKU:** 1000003228-group

**Product Code:** ES39-RD-000120

## Material Properties for Polymers

### Chemical Resistance

Element	Value
Acids - concentrated	Fair
Acids - dilute	Good
Alcohols	Good
Alkalis	Fair
Aromatic hydrocarbons	Good
Greases and Oils	Good
Ketones	Good

### Electrical Properties

Element	Value
Dielectric constant @ 1MHz	3.5
Dissipation factor @ 1MHz	0.008
Dielectric strength( kV mm <sup>21</sup> )	38
Surface resistivity( Ohm/sq )	>10 <sup>12</sup>
Volume resistivity( Ohmcm )	10 <sup>13</sup>

### Physical Properties

Element	Value
Flammability	V-0
Radiation resistance	Good
Resistance to Ultra-violet	Good
Limiting oxygen index( % )	50

<b>Element</b>	<b>Value</b>
Water absorption - equilibrium( % )	0.08
Water absorption - over 24 hours( % )	0.009
Density( gcm <sup>3</sup> )	1.6

## **Mechanical Properties**

<b>Element</b>	<b>Value</b>
Hardness - Rockwell	M100
Elongation at break( % )	1
Compressive modulus( GPa )	21.5
Tensile modulus( GPa )	22
Tensile strength( MPa )	205

## **Thermal Properties**

<b>Element</b>	<b>Value</b>
Heat-deflection temperature - 1.8MPa( C )	235
Upper working temperature( C )	200-220
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	1626
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	Mar-13

## **Pultrusions**

<b>Element</b>	<b>Value</b>
Compressive strength( MPa )	150