

# performanceplastics

## Grivory GV-5H

50% glass fibre reinforced engineering thermoplastic material based on a combination of semi-crystalline polyamide with partially aromatic co-polyamide, injection-moulding grade.

Property	Test Method	Unit		Value
<b>Mechanical</b>				
Density	ISO 1183	g/cm <sup>3</sup>	dry	1.56
Tensile E Modulus	ISO 527	MPa	dry	18000
	ISO 527	MPa	cond	17000
Tensile strength at yield	ISO 527	MPa	dry	*
	ISO 527	MPa	cond	*
Elongation at yield	ISO 527	%	dry	*
	ISO 527	%	cond	*
Tensile strength at break	ISO 527	MPa	dry	250
	ISO 527	MPa	cond	220
Elongation at break	ISO 527	%	dry	3
	ISO 527	%	cond	3
Charpy notched impact 23°C	ISO 179/1eA	KJ/m <sup>2</sup>	dry	14
	ISO 179/1eA	KJ/m <sup>2</sup>	cond	14
Charpy notched impact -30°C	ISO 179/1eA	KJ/m <sup>2</sup>	dry	13
	ISO 179/1eA	KJ/m <sup>2</sup>	cond	13
<b>Thermal</b>				
Melting Point	ISO 11357	°C	dry	260
HDT A (1.8 MPa)	ISO 75	°C	dry	235
Coefficient of linear thermal expansion (long) 23 - 80°C	ISO 11359	10 <sup>-4</sup> /K	dry	0.15
Coefficient of linear thermal expansion (trans) 23 - 80°C	ISO 11359	10 <sup>-4</sup> /K	dry	0.9
Maximum usage Temp. (long term)	EMS	°C	dry	100-120
Maximum usage Temp. (short term)	EMS	°C	dry	180
<b>Electrical</b>				
Comparative tracking index (CTI)	IEC 112		dry	
	IEC 112		cond	600
<b>Behavioural</b>				
Flammability (0.8mm)	UL94	Rating		HB
Water absorption	ISO 62	%	(23°C/sat)	4.5
Moisture absorption	ISO 62	%	(23°C/50% RH)	1.3
<b>Mould Shrinkage</b>				
Linear	ISO 294	%	dry	0.05
Transverse	ISO 294	%	dry	0.4

The values quoted are the average of results obtained under laboratory conditions and are given only as an indication to enable customers to make use of our products. Prospective users should determine the suitability of materials before adopting them on a commercial scale.

### Features

- Exhibits Exceptional Characteristics Even After Water Absorption
- Economical Alternative to Die Cast Alloys
- High Stiffness and Strength
- Dimensional Stability, Low Warp
- Good Chemical Resistance
- Good Surface Finish

Performance Plastics Ltd  
 Unit 3, Brock House, Grigg Lane, Brockenhurst, SO42 7RE  
 Tel. 01590 622 666  
 Fax 01590 622 629  
 Website [www.performance-plastics.co.uk](http://www.performance-plastics.co.uk)  
 E-mail [info@performance-plastics.co.uk](mailto:info@performance-plastics.co.uk)

