

**Grivory GVX-5 H nat**

PA\*-GF50

EMS-GRIVORY | a unit of EMS-CHEMIE AG

**Product Texts**

Product designation according to ISO 1874:

PA66+PA61/X , MH, 14-190, GF50

<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Tensile Modulus	<b>18000 / 17000</b>	MPa	ISO 527-1/-2
Stress at break	<b>250 / 220</b>	MPa	ISO 527-1/-2
Strain at break	<b>2.5 / 2.5</b>	%	ISO 527-1/-2
Charpy impact strength (+23°C)	<b>80 / 75</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	<b>65 / 60</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	<b>15 / 15</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	<b>15 / 15</b>	kJ/m <sup>2</sup>	ISO 179/1eA

<b>Mechanical properties (TPE)</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Ball indentation hardness	<b>290 / 265</b>	MPa	ISO 2039-1

<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Melting temperature (10°C/min)	<b>260 / -</b>	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	<b>245 / -</b>	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	<b>175 / -</b>	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	<b>20 / -</b>	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	<b>50 / -</b>	E-6/K	ISO 11359-1/-2
Burning Behav. at thickness h	<b>HB / -</b>	class	IEC 60695-11-10
Thickness tested	<b>0.8 / -</b>	mm	IEC 60695-11-10
Max. usage temperature (long term)	<b>100 - 120</b>	°C	ISO 2578
Max. usage temperature (short term)	<b>220</b>	°C	EMS

<b>Electrical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Volume resistivity	<b>1E10 / 1E10</b>	Ohm*m	IEC 60093
Surface resistivity	<b>- / 1E12</b>	Ohm	IEC 60093
Electric strength	<b>33 / 33</b>	kV/mm	IEC 60243-1
Comparative tracking index	<b>- / 600</b>	-	IEC 60112

<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Water absorption	<b>4 / -</b>	%	Sim. to ISO 62
Humidity absorption	<b>1.4 / -</b>	%	Sim. to ISO 62
Density	<b>1560 / -</b>	kg/m <sup>3</sup>	ISO 1183

<b>Rheo/Phys properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Molding shrinkage (parallel)	<b>0.1 / -</b>	%	ISO 294-4, 2577
Molding shrinkage (normal)	<b>0.3 / -</b>	%	ISO 294-4, 2577

**Characteristics**
**Processing**

Injection Molding

**Automotive**

Air intake sytems, Automotive electr. and electronics, lighting, Cooling and climate control, Powertrain and Chassis , Interior, Exterior

**Delivery form**

Granules

**Electricals & Electronics**

Electrical appliances, Electrical equipment, Connectors, Energy distribution, Mobile phones and other portable devices

**Regional Availability**

North America, Europe, Asia Pacific, South and Central America,  
Near East/Africa

**Industry & Consumer goods**

Housewares, Hydraulics & Pneumatics, Mechanical Engineering,  
Power transmission, Sanitary, water and gas supply, Sports &  
Leisure, Tools & Accessories

**Product Attributes**

Partially aromatic Polyamide