

## Grilamid LBV-65H FWA nat

### PA12-GF65

EMS-GRIVORY | a unit of EMS-CHEMIE AG

#### Product Texts

Product designation according to ISO 1874:

PA12, MH, 18-190, GF65

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	<b>20000 / 18500</b>	MPa	ISO 527-1/-2
Stress at break	<b>190 / 170</b>	MPa	ISO 527-1/-2
Strain at break	<b>3 / 3</b>	%	ISO 527-1/-2
Charpy impact strength (+23°C)	<b>65 / 60</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>12 / 12</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	<b>10 / 10</b>	kJ/m <sup>2</sup>	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Shore D hardness (15s)	<b>- / 88</b>	-	ISO 868
Ball indentation hardness	<b>- / 230</b>	MPa	ISO 2039-1

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	<b>178 / -</b>	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	<b>160 / -</b>	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	<b>130 / -</b>	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	<b>10 / -</b>	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	<b>75 / -</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>90 - 120</b>	°C	ISO 2578
Max. usage temperature (short term)	<b>160</b>	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	<b>- / 1E10</b>	Ohm*m	IEC 60093
Surface resistivity	<b>- / 1E11</b>	Ohm	IEC 60093
Electric strength	<b>- / 35</b>	kV/mm	IEC 60243-1
Comparative tracking index	<b>- / 600</b>	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	<b>0.8 / -</b>	%	Sim. to ISO 62
Humidity absorption	<b>0.4 / -</b>	%	Sim. to ISO 62
Density	<b>1650 / -</b>	kg/m <sup>3</sup>	ISO 1183

Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	<b>0.1 / -</b>	%	ISO 294-4, 2577
Molding shrinkage (normal)	<b>0.4 / -</b>	%	ISO 294-4, 2577

#### Characteristics

##### Processing

Injection Molding

##### Product Attributes

Hydrolysis resistant

##### Delivery form

Granules

##### Industry & Consumer goods

Heating systems, Sanitary, water and gas supply

**Special Characteristics**

High impact or impact modified, Improved UV resistance (outdoor use), Improved heat resistance

**Regional Availability**

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

**Food Contact**

EU Requirements, FDA

**Water contact**

NSF 61, KTW, WRAS, ACS, DVGW W270