

# Grilamid XE 3915 PA12-GF50

# EMS-GRIVORY | a unit of EMS-CHEMIE AG

## Product Information

Product designation according to ISO 1874: PA12, MHR, 18-120, GF50

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Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	13000 / 11500	MPa	ISO 527-1/-2
Stress at break	155 / 135	MPa	ISO 527-1/-2
Strain at break	6 / 6	%	ISO 527-1/-2
Charpy impact strength (+23°C)	85 / 80	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	85 / 80	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	21 / 20	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	16 / 15	kJ/m²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Shore D hardness (15s)	<b>- / 82</b>	-	ISO 868
Ball indentation hardness	- / 155	MPa	ISO 2039-1

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	178 / -	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	165 / -	°C	ISO 75-1/-2
Temp. of deflection under load (8.0 MPa)	125 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	15 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	120 / -	E-6/K	ISO 11359-1/-2
Burning Behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	IEC 60695-11-10
Max. usage temperature (long term)	90 - 120	°C	EMS
Max. usage temperature (short term)	150	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	- / <b>1E11</b>	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	- / 35	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	0.8 / -	%	Sim. to ISO 62
Humidity absorption	0.4 / -	%	Sim. to ISO 62
Density	1470 / -	kg/m³	ISO 1183

Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	0.1 / -	%	ISO 294-4, 2577
Molding shrinkage (normal)	0.5 / -	%	ISO 294-4, 2577

#### Characteristic

# Processing

Injection Molding

#### Special Characteristics

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

# Automotive

Compressed air systems, Hydraulic systems, Automotive electr. and electronics, lighting, Exterior

#### Electricals & Electronics

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

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## Regional Availability

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## Industry & Consumer goods

Housewares, Mechanical Engineering, Medical devices, Power transmission, Sports & Leisure, Tools & Accessories