

Grilon XE 5051 (BGZ-40 FC)

PA6-GF40

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:

PA6-HI, MHR, 12-110N, GF40

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	11000 / 7500	MPa	ISO 527-1/-2
Stress at break	170 / 115	MPa	ISO 527-1/-2
Strain at break	3.5 / 8	%	ISO 527-1/-2
Charpy impact strength (+23°C)	100 / -	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	85 / 80	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	25 / 35	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	19 / 15	kJ/m ²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Ball indentation hardness	220 / 120	MPa	ISO 2039-1

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	222 / -	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	205 / -	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	120 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	20 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	60 / -	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	ISO 2578
Max. usage temperature (short term)	180	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	1E12 / 1E12	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	41 / 37	kV/mm	IEC 60243-1
Comparative tracking index	- / 550	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	5 / -	%	Sim. to ISO 62
Humidity absorption	1.5 / -	%	Sim. to ISO 62
Density	1430 / -	kg/m ³	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

Characteristics
Processing

Injection Molding

Delivery form

Granules

Product Attributes

Improved flowability and demoulding

Automotive

Automotive electr. and electronics, lighting, Powertrain and Chassis



Special Characteristics

High impact or impact modified

Regional Availability

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

Electricals & Electronics

Electrical appliances, Electrical equipment, Connectors

Industry & Consumer goods

Housewares, Mechanical Engineering, Sports & Leisure, Tools &
Accessories

