

Grilon BG-40 FC

PA6-GF40

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:

PA 6, MHR, 12-190N, GF40

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	11600 / 8500	MPa	ISO 527-1/-2
Stress at break	230 / 150	MPa	ISO 527-1/-2
Strain at break	3 / 5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	75 / 80	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	70 / 75	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 20	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	9 / -	kJ/m ²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Ball indentation hardness	245 / 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)	210 / -	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	165 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	18 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	92 / -	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)	110 - 130	°C	ISO 2578
Max. usage temperature (short term)	200	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	1E12 / 1E11	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	37 / 35	kV/mm	IEC 60243-1
Comparative tracking index	- / 550	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	7 / -	%	Sim. to ISO 62
Humidity absorption	1.5 / -	%	Sim. to ISO 62
Density	1460 / -	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)	0.6 / -	%	ISO 294-4, 2577

Characteristics
Processing

Injection Molding

Automotive

Powertrain and Chassis , Interior

Delivery form

Granules

Electricals & Electronics

Electrical appliances, Electrical equipment, Connectors



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Regional Availability

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

Product Attributes

Improved flowability and demoulding

Industry & Consumer goods

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

