

Grilamid XE 3817 black 9992

PA12

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:

PA12, MHR, 18-010

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	1600 / 1200	MPa	ISO 527-1/-2
Yield stress	50 / 40	MPa	ISO 527-1/-2
Yield strain	5 / 10	%	ISO 527-1/-2
Nominal strain at break	>50 / >50	%	ISO 527-1/-2
Stress at break	50 / 50	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6 / 7	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6 / 6	kJ/m ²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Shore D hardness (15s)	75 / 70	-	ISO 868

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)	50 / -	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	115 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	120 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	140 / -	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 - 110	°C	ISO 2578
Max. usage temperature (short term)	150	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	1E11 / 1E11	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	36 / 35	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	1.5 / -	%	Sim. to ISO 62
Humidity absorption	0.7 / -	%	Sim. to ISO 62
Density	1010 / -	kg/m ³	ISO 1183

Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	0.8 / -	%	ISO 294-4, 2577
Molding shrinkage (normal)	0.8 / -	%	ISO 294-4, 2577

Characteristics

Processing

Other Extrusion

Delivery form

Granules

Regional Availability

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


Special Characteristics

Improved heat resistance

Automotive

Hydraulic systems, Fuel systems

