

Grilamid LBV-50H FWA black 9225 PA12-GF50

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:

PA12, MH, 18-120, GF50

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	13500 / 12500	MPa	ISO 527-1/-2
Stress at break	170 / 160	MPa	ISO 527-1/-2
Strain at break	5/5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	95 / 90	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	95 / 90	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	18 / 18	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	14 / 14	kJ/m²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Shore D hardness (15s)	- / 86	-	ISO 868
Ball indentation hardness	- / 190	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)	160 / -	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	110 / -	°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)	90 / -	E-6/K	ISO 11359-1/-2
Max. usage temperature (long term)	90 - 120	°C	ISO 2578
Max. usage temperature (short term)	150	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	- / 1E10	Ohm*m	IEC 60093
Surface resistivity	- / 1E11	Ohm	IEC 60093
Electric strength	- / 40	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	_	IFC 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 / -	ka/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

Characteristics

Processing	Product Attributes
Injection Molding	Hydrolysis resistant
Delivery form	Industry & Consumer goods
Granules	Heating systems, Sanitary, water and gas supply
Special Characteristics	Food Contact
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High impact or impact modified, Improved UV resistance (outdoor

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EU Requirements, FDA

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use), Improved heat resistance

Regional Availability

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

Potable Water Contact

NSF 61, KTW, WRAS, ACS, DVGW W270