

## Grilamid TRVX-50X9 black 9230 PAMACM12-GF50

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

#### Product Texts

Product-nomenclature according to ISO 1874: PA MACM12+X, MH, 12-120, GF50

PA MAGMIZ+A, MIN, 12-120, GF30			
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	- / 12500	MPa	ISO 527-1/-2
Stress at break	- / 160	MPa	ISO 527-1/-2
Strain at break	-/2	%	ISO 527-1/-2
Charpy impact strength (+23°C)	- / 65	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	- / 60	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	- / 16	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	- / 15	kJ/m²	ISO 179/1eA
Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Ball indentation hardness	- / 190	MPa	ISO 2039-1
Thermal properties	dry / cond	Unit	Test Standard
Glass transition temperature (10°C/min)	125 / -	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	115/-	<u> </u>	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	105/-	<u> </u>	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	20 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	80 / -	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)	80 - 110	°C	EMS
Max. usage temperature (short term)	120	°C	EMS
Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	-/1E11	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	- / 32	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112
Other properties	dry / cond	Unit	Test Standard
Water absorption	1/-	%	Sim. to ISO 62
Humidity absorption	0.3 / -	%	Sim. to ISO 62
Density	1500 / -	kg/m³	ISO 1183
Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	0.1 / -	%	ISO 294-4, 2577
		0/	100 004 4 0555

#### Characteristics

Molding shrinkage (normal)

Processing	Automotive		
Injection Molding	Automotive electr. and electronics, lighting, Cooling and climate control, Powertrain and Chassis		
Delivery form			
Granules	Electricals & Electronics		
Granues	Electrical appliances, Electrical equipment, Energy distribution,		
Regional Availability	Mobile phones and other portable devices		
North America, Europe, Asia Pacific, South and Central America,			

0.1/-

%

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ISO 294-4, 2577

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#### Near East/Africa

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

#### Industry & Consumer goods

Heating systems, Housewares, Hydraulics & Pneumatics, Mechanical Engineering, Medical devices, Power transmission, Tools & Accessories

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