

Grilamid TR 90 TL
PAMACM12

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:
PA MACM12,MACMI/MACMT/12,12, GT, 11-20

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	- / 1850	MPa	ISO 527-1/-2
Yield stress	- / 75	MPa	ISO 527-1/-2
Yield strain	- / 7	%	ISO 527-1/-2
Stress at break	- / 55	MPa	ISO 527-1/-2
Strain at break	- / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	- / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	- / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	- / 10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	- / 11	kJ/m ²	ISO 179/1eA

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

Thermal properties	dry / cond	Unit	Test Standard
Glass transition temperature (10°C/min)	135 / -	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	90 / -	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	110 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	95 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	95 / -	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 - 100	°C	ISO 2578
Max. usage temperature (short term)	110	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	- / 1E11	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	- / 33	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	2.5 / -	%	Sim. to ISO 62
Humidity absorption	2 / -	%	Sim. to ISO 62
Density	1020 / -	kg/m ³	ISO 1183

Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	0.5 / -	%	ISO 294-4, 2577
Molding shrinkage (normal)	0.6 / -	%	ISO 294-4, 2577

Characteristics

Processing

Injection Molding

Product Attributes

Hydrolysis resistant, Co Polyamide, Transparent Polyamide

Delivery form

Granules

Automotive

Compressed air systems, Fuel systems, Exterior

Grilamid TR 90 TL
PAMACM12

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Additives

Lubricants

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, Energy distribution, Lighting, Mobile phones and other portable devices

Industry & Consumer goods

Housewares, Hydraulics & Pneumatics, Mechanical Engineering, Medical devices
