

Grilamid® XE 3982

Polyamide 12

EMS-GRIVORY

Message:

Grilamid® XE 3982 is a Polyamide 12 (Nylon 12) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for extrusion.

Important attributes of Grilamid® XE 3982 are:

- Flame Rated
- RoHS Compliant
- Plasticized
- Good Flexibility

Typical applications include:

- Consumer Goods
- Electrical/Electronic Applications
- Hose/Tubing
- Industrial Applications
- Wire & Cable

General Information				
Additive		Plasticizer		
Features		Good Flexibility		
		Plasticized		
Uses		Consumer Applications		
		Electrical/Electronic Applications		
		Hydraulic Applications		
		Industrial Applications		
		Pneumatic Applications		
		Tubing		
		Wire & Cable Applications		
RoHS Compliance		RoHS Compliant		
Forms		Granules		
Processing Method		Extrusion		
Physical	Dry	Conditioned	Unit	Test Method
Density	0.990	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.4	--	%	
Flow	0.60	--	%	
Water Absorption				ISO 62
Saturation, 23°C	1.2	--	%	
Equilibrium, 23°C, 50% RH	0.50	--	%	
Hardness	Dry	Conditioned	Unit	Test Method

Shore Hardness (Shore D, 15 sec)	--	53		ISO 868
Ball Indentation Hardness	--	20.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	195	195	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Break	45.0	40.0	MPa	
50% Strain	18.0	18.0	MPa	
Tensile Strain (Break)	> 50	> 50	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	9.0	10	kJ/m ²	
23°C	No Break	No Break		
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		
23°C	No Break	No Break		
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	80.0	--	°C	ISO 75-2/B
Continuous Use Temperature				Internal Method
-- ¹	80.0 to 110	--	°C	
-- ²	150	--	°C	
Melting Temperature ³	170	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.6E-4	--	cm/cm/°C	
Transverse	1.6E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+11	ohms	IEC 60093
Volume Resistivity	--	1.0E+11	ohms·cm	IEC 60093
Electric Strength	--	39	kV/mm	IEC 60243-1
Comparative Tracking Index	--	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification (0.800 mm)	HB	--		IEC 60695-11-10, -20
Additional Information	Dry	Conditioned		Test Method
ISO Type	PA12-HIP, EHL, 24-002	--		ISO 1874
NOTE				
1.	Long Term			
2.	Short Term			
3.	10°C/min			

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