

Grilamid® XE 3997 nat

Polyamide 12

EMS-GRIVORY

Message:

Grilamid® XE 3997 nat is a Polyamide 12 (Nylon 12) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for blow molding, extrusion, or injection stretch blow molding.

Important attributes of Grilamid® XE 3997 nat are:

- Flame Rated
- RoHS Compliant
- Food Contact Acceptable
- Typical applications include:
 - Food Contact Applications
 - Containers
 - Medical/Healthcare
 - Packaging

General Information				
Features	Food Contact Acceptable			
Uses	Blow Molding Applications			
	Blown Containers			
	Medical/Healthcare Applications			
	Packaging			
Agency Ratings	EU Food Contact, Unspecified Rating			
	FDA Food Contact, Unspecified Rating			
RoHS Compliance	RoHS Compliant			
Appearance	Clear/Transparent			
	Natural Color			
Forms	Granules			
Processing Method	Blow Molding			
	Extrusion			
	Injection Stretch Blow Molding			
Physical	Dry	Conditioned	Unit	Test Method
Density	1.00	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.70	--	%	
Water Absorption				ISO 62
Saturation, 23°C	3.0	--	%	
Equilibrium, 23°C, 50% RH	1.5	--	%	

Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	--	90.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	--	1600	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	--	60.0	MPa	
Break	--	45.0	MPa	
Tensile Strain				ISO 527-2
Yield	--	6.0	%	
Break	--	> 50	%	
Nominal Tensile Strain at Break	--	> 50	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	--	12	kJ/m ²	
23°C	--	13	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	--	No Break		
23°C	--	No Break		
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	135	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	115	--	°C	ISO 75-2/A
Continuous Use Temperature				Internal Method
-- ¹	80.0 to 100	--	°C	
-- ²	120	--	°C	
Glass Transition Temperature ³	155	--	°C	ISO 11357-2
CLTE				ISO 11359-2
Flow	9.0E-5	--	cm/cm/°C	
Transverse	9.0E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+12	ohms	IEC 60093
Volume Resistivity	--	1.0E+13	ohms·cm	IEC 60093
Electric Strength	--	34	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	PA MACM12, GT, 14-020	--	ISO 1874
NOTE			
1.	Long Term		
2.	Short Term		
3.	10°C/min		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519
Phone: +86 13424755533
Email: sales@su-jiao.com
No. 215, Lianhe North Road, Fengxian District, Shanghai, China

