

Grilamid® TR 55 LX

Polyamide 12

EMS-GRIVORY

Message:

Grilamid® TR 55 LX is a Polyamide 12 (Nylon 12) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grilamid® TR 55 LX are:

Flame Rated

RoHS Compliant

Chemical Resistant

Typical applications include:

Automotive

Medical/Healthcare

Appliances

Consumer Goods

Electrical/Electronic Applications

General Information	
UL YellowCard	E53898-592170
Features	Alcohol Resistant
Uses	Appliance Components
	Automotive Applications
	Automotive Interior Parts
	Consumer Applications
	Electrical/Electronic Applications
	Engineering Parts
	Eyeglass Frames
	Eyeglasses
	Household Goods
	Hydraulic Applications
	Industrial Applications
	Medical Devices
	Optical Applications
	Pneumatic Applications
	Power/Other Tools
	Sporting Goods
	Tubing
	Wire & Cable Applications
Agency Ratings	NSF 61
RoHS Compliance	RoHS Compliant
Appearance	Clear/Transparent
Forms	Granules
Processing Method	Injection Molding

Multi-Point Data	Isochronous Stress vs. Strain (ISO 11403-1)			
	Isothermal Stress vs. Strain (ISO 11403-1)			
	Secant Modulus vs. Strain (ISO 11403-1)			
	Shear Modulus vs. Temperature (ISO 11403-1)			
	Viscosity vs. Shear Rate (ISO 11403-2)			

Physical	Dry	Conditioned	Unit	Test Method
Density	1.04	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.60	--	%	
Flow	0.50	--	%	
Water Absorption				ISO 62
Saturation, 23°C	2.5	--	%	
Equilibrium, 23°C, 50% RH	1.0	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	--	110	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	--	1900	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	--	70.0	MPa	
Break	--	40.0	MPa	
Tensile Strain (Yield)	--	6.0	%	ISO 527-2
Nominal Tensile Strain at Break	--	> 50	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	--	8.0	kJ/m ²	
23°C	--	9.0	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	90.0	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	80.0	--	°C	ISO 75-2/A
Continuous Use Temperature				Internal Method
-- ¹	80.0	--	°C	
-- ²	95.0	--	°C	

Glass Transition Temperature ³	110	--	°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	--	32	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 12/MACMI + PA 12, GHLT, 14-020			ISO 1874
NOTE				
1.	Long Term			
2.	Short Term			
3.	10°C/min			

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