

Grilamid® TR 55 LZ

Polyamide 12

EMS-GRIVORY

Message:

Grilamid® TR 55 LZ 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 LZ are:

- Flame Rated
- RoHS Compliant
- Chemical Resistant
- High ESCR (Stress Crack Resistant)
- High Strength

Typical applications include:

- Medical/Healthcare
- Appliances
- Automotive
- Consumer Goods
- Electrical/Electronic Applications

General Information	
Features	Alcohol Resistant
	High ESCR (Stress Crack Resist.)
	High Strength
Uses	Appliance Components
	Automotive Applications
	Consumer Applications
	Electrical/Electronic Applications
	Engineering Parts
	Eyeglasses
	Household Goods
	Industrial Applications
	Medical Devices
	Optical Applications
	Power/Other Tools
	Safety Equipment
	Sporting Goods
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	1.02	--	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	--	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	--	55.0	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	--	20	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	85.0	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	75.0	--	°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	1.1E-4	--	cm/cm/°C	
Transverse	1.1E-4	--	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-HI, GHLT, 12-020			ISO 1874
T.A.M.C. at Drumming	--			
NOTE				
1.	Long Term			
2.	Short Term			
3.	10°C/min			

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