Grilamid® TR 55 LY

Polyamide 12

EMS-GRIVORY

Message:

Grilamid® TR 55 LY 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 LY are:
Flame Rated
RoHS Compliant
Chemical Resistant
High ESCR (Stress Crack Resistant)
Typical applications include:
Medical/Healthcare
Automotive
Consumer Goods
Engineering/Industrial Parts
Household Applications

General Information	
Features	Alcohol Resistant High ESCR (Stress Crack Resist.)
Uses	Automotive Applications Consumer Applications Engineering Parts Eyeglass Frames Eyeglasses Household Goods Industrial Applications Optical Applications Power/Other Tools Sporting Goods
Agency Ratings	NSF 61
RoHS Compliance	RoHS Compliant
Appearance	Clear/Transparent
Forms	Granules
Processing Method	Injection Molding
Multi-Point Data	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/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.50	--	%	
Flow	0.30	--	%	
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/m²	
23°C	--	9.0	kJ/m²	
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			

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