Grilamid® LKN-5H

Polyamide 12

EMS-GRIVORY

Message:

Grilamid® LKN-5H is a Polyamide 12 (Nylon 12) material filled with 50% glass bead. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.
Important attributes of Grilamid® LKN-5H are:
Flame Rated
RoHS Compliant
Heat Stabilizer
Typical applications include:
Plumbing/Piping/Potable Water
Electrical/Electronic Applications
Appliances
Automotive
Consumer Goods

General Information		
UL YellowCard	E53898-243841	E132701-237873
Filler / Reinforcement	Glass Bead,50% Filler by Weight	
Additive	Heat Stabilizer	
Features	Heat Stabilized	
Uses	Appliance Components Automotive Applications Connectors Consumer Applications Electrical/Electronic Applications Household Goods Industrial Applications Medical Devices Power/Other Tools	
Agency Ratings	ACS Unspecified Rating DVGW W270 WRAS Unspecified Rating	
RoHS Compliance	RoHS Compliant	
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) Specific Volume vs Temperature (ISO 11403-2)	

Physical	Dry	Conditioned	Unit	Test Method
Density	1.44	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.80	--	%	
Water Absorption				ISO 62
Saturation, 23°C	0.80	--	%	
Equilibrium, 23°C, 50% RH	0.40	--	%	
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Shore Hardness (Shore D, 15 sec)	--	75		ISO 868
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	2600	2300	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	50.0	45.0	MPa	
Break	50.0	40.0	MPa	
Tensile Strain (Yield)	5.0	7.0	%	ISO 527-2
Nominal Tensile Strain at Break	20	25	%	ISO 527-2
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	4.0	4.0	kJ/m²	
23°C	5.0	5.0	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	--	65	kJ/m²	
23°C	130	110	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
1.8 MPa, Unannealed	65.0	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	40.0	--	°C	ISO 75-2/C
Continuous Use Temperature				Internal Method
-- [1]	90.0 to 120	--	°C	
-- [2]	150	--	°C	
Melting Temperature [3]	178	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.2E-4	--	cm/cm/°C	
Transverse	1.2E-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	--	35	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, MHR, 18-020, GB50	--		ISO 1874
NOTE				
1.	Long Term			
2.	Short Term			
3.	10°C/min			

Recommended distributors for this material

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