

Grilamid® LKN-3H

Polyamide 12

EMS-GRIVORY

Message:

Grilamid® LKN-3H is a Polyamide 12 (Nylon 12) material filled with 30% 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-3H are:

Flame Rated

RoHS Compliant

Heat Stabilizer

Typical applications include:

Automotive

Electrical/Electronic Applications

Plumbing/Piping/Potable Water

Appliances

Consumer Goods

General Information				
Filler / Reinforcement		Glass Bead,30% 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		
Agency Ratings		ACS Unspecified Rating		
		DVGW W270		
RoHS Compliance		RoHS Compliant		
Forms		Granules		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.21	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.90	--	%	
Water Absorption				ISO 62
Saturation, 23°C	1.2	--	%	

Equilibrium, 23°C, 50% RH	0.60	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	--	75.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1900	1600	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	50.0	45.0	MPa	
Break	45.0	35.0	MPa	
Tensile Strain (Yield)	8.0	10	%	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	3.0	3.0	kJ/m ²	
23°C	5.0	5.0	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	--	45	kJ/m ²	
23°C	170	150	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
1.8 MPa, Unannealed	50.0	--	°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	1.4E-4	--	cm/cm/°C	
Transverse	1.4E-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, GB30	--		ISO 1874

NOTE

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|----|------------|
| 1. | Long Term |
| 2. | Short Term |
| 3. | 10°C/min |

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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

