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Technical Data Sheet

Schulamid 6MKF4015-01 NATURAL

Polyamide 6

Product Description

Schulamid 6MKF4015-01 NATURAL is a Polyamide 6 Glass Fiber\Mineral, 40% filled material and is typically used in Injection Molding applications. Features include: Balanced Stiffness/Toughness, Good Processability, Low Warpage, and Oil Resistant.

Processing Method	Injection Molding
Attribute	Good Processability; Good Stiffness/Impact Balance; Low Warpage; Oil Resistant
Filler/Reinforcement	Glass Fiber\Mineral, 40%

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.45	g/cm³	ISO 1183
Viscosity Number	145	cm³/g	ISO 307
Mechanical			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	2.0	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	3.0	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	110	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	70.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	7000	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	4500	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	8.0	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	5.0	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	13	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A) - Conditioned	8.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	50	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	40	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	75	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise) - Conditioned	60	kJ/m²	ISO 179
Hardness			
Ball Indentation Hardness, (H 358/30)	205	MPa	ISO 2039-1
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	210	°C	ISO 306
(A (10N), 50 °C/h)	215	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	210	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	180	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
- Conditioned	>1.0E+10	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	400	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	>1.0E+12	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	<100	mm/min	FMVSS 302
(2.00 mm)	<100	mm/min	ISO 3795
Glow Wire Flammability Index			
(1.5 mm) - Conditioned	650	°C	IEC 60695-2-12
(3.0 mm) - Conditioned	650	°C	IEC 60695-2-12
Additional Information			
Water Absorption 23C/50RH	1.9	%	ISO 62
UL Information			
Flammability Classification			
(1.5 mm) - Conditioned	HB		IEC 60695-11-10, -20
(3.0 mm) - Conditioned	HB		IEC 60695-11-10, -20

Injection Parameters	Nominal Value	Units
Drying Time	3.0 to 4.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.040 to 0.10	%
Processing (Melt) Temp	250 to 280	°C
Mold Temperature	60 to 100	°C