Technical Data Sheet

Schulamid 66 GF 15 H NAT

Polyamide 66

Product Description

15% glass fiber reinforced, heat stabilized Polyamide 66

Processing Method	Injection Molding
Attribute	Good Heat Aging Resistance; Good Surface Finish; Medium Viscosity; Oil Resistant
Filler/Reinforcement	Glass Fiber, 15%

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.23	g/cm³	ISO 1183
Viscosity Number	140	cm³/g	ISO 307
Mechanical			
Flexural Strain at Flexural Strength	4	%	ISO 178
Tensile Strain at Break			
(Type 1A, 5 mm/min)	3.0	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	12	%	ISO 527-2
Flexural Modulus	4900	MPa	ISO 178
Tensile Stress at Break			
(Type 1A, 5 mm/min)	120	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	75.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	6200	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	3600	MPa	ISO 527-1
Flexural Stress	165	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	6.0	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	9.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	30	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	28	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	70	kJ/m²	ISO 179
Hardness			
Ball Indentation Hardness			
(H 358/30)	170	MPa	ISO 2039-1
(H 358/30) - Conditioned	110	MPa	ISO 2039-1

Ball Pressure Test, (110 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	245	°C	ISO 306
(A (10N), 50 °C/h)	>250	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	>250	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	235	°C	ISO 75-2/A
RTI Elec			
(1.5 mm)	120	°C	UL 746B
(3.0 mm)	120	°C	UL 746B
(0.75 mm)	120	°C	UL 746B
RTI Imp			
(1.5 mm)	110	°C	UL 746B
(3.0 mm)	120	°C	UL 746B
(0.75 mm)	100	°C	UL 746B
RTI Str			
(1.5 mm)	120	°C	UL 746B
(3.0 mm)	130	°C	UL 746B
(0.75 mm)	110	°C	UL 746B
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)	450	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	>1.0E+12	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	40	mm/min	FMVSS 302
(2.00 mm)	40	mm/min	ISO 3795
Glow Wire Flammability Index			
(1.5 mm)	650	°C	IEC 60695-2-12
(3.0 mm)	650	°C	IEC 60695-2-12
Additional Information			
Water Absorption 23C/50RH	2.2	%	ISO 62
UL Information			
Flammability Classification			
(0.75 mm)	HB		IEC 60695-11-10, -20
(1.5 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	HB		IEC 60695-11-10, -20
UL File Number	E86615		

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	280 to 300	°C
Mold Temperature	60 to 120	°C