

Technical Data Sheet

Schulamid 66 GF15 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/cm ³	ISO 1183
Viscosity Number	140	cm ³ /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/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	5.0	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	9.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	30	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	28	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	70	kJ/m ²	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	ISO 3795
(2.00 mm)	40 mm/min	FMVSS 302
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