

Technical Data Sheet

Schulamid FR 66 GF40 FR2 BLK



Polyamide 66

Product Description

40% glass fiber reinforced flame-retardant Polyamide 66 grade; halogen free

Processing Method	Injection Molding
Attribute	Halogen Free; PFAS free
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 40%

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.52	g/cm ³	ISO 1183
Viscosity Number	146	cm ³ /g	ISO 307
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	2.5	%	ISO 527-2
Tensile Stress at Break, (Type 1A, 5 mm/min)	155	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	15100	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	9.0	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	9.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	65	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	55	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	229	°C	ISO 306
(A (10N), 50 °C/h)	255	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	256	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	242	°C	ISO 75-2/A
Electrical			
Comparative Tracking Index (CTI)	500	V	IEC 60112
Flammable			

Burning Rate			
(0.750 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(1.50 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(3.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
Glow Wire Flammability Index			
(0.75 mm)	960	°C	IEC 60695-2-12
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(0.75 mm)	750	°C	IEC 60695-2-13
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	750	°C	IEC 60695-2-13
Oxygen Index	34	%	ISO 4589-2
UL Information			
Flammability Classification			
(0.75 mm)	V-0		IEC 60695-11-10, -20
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	V-0		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	%
Screw Speed		<250	mm/sec
Processing (Melt) Temp		270 to 300	°C
Injection Rate		Slow-Moderate	
Back Pressure		20 to 80	bar
Mold Temperature		60 to 100	°C