

Technical Data Sheet

Schulamid 66 MW30 FR4 K2031 NAT



Polyamide 66

Product Description

30% mineral filled flame-retardant Polyamide 66 grade with low warpage; without PBDE

Processing Method	Injection Molding
Attribute	Good Strength; Low Warpage
Additive	Flame Retardant
Filler/Reinforcement	Mineral, 30%
Resin ID	PA66 MF30 FR(17)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.60	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	2.0	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	6.0	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	80.0	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	40.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	9200	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)	2.0	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	2.0	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	2.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	23	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	12	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	33	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)	239	°C	ISO 306
(A (10N), 50 °C/h)	>250	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	236	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	153	°C	ISO 75-2/A
Electrical			
Comparative Tracking Index (CTI)	300	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)	875	°C	IEC 60695-2-13
(1.5 mm)	875	°C	IEC 60695-2-13
(3.0 mm)	875	°C	IEC 60695-2-13
Oxygen Index	33	%	ISO 4589-2
UL Information			
Flame Rating			
(1.5 mm)	V-2		UL 94
(3.0 mm)	V-0		UL 94
(0.75 mm)	V-2		UL 94
Flammability Classification			
(0.75 mm)	V-2		IEC 60695-11-10, -20
(1.5 mm)	V-2		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 290	°C
Back Pressure	20 to 80	bar
Mold Temperature	60 to 100	°C