Technical Data Sheet

Schulamid 612 FS4003 NAT

Polyamide 612

Product Description

Unfilled heat stabilized PA 612 compound especially for extrusion applications. Impact modified. Glossy surface. Easy processing with good flow properties. UV stabilized.

Processing Method	Extrusion; Injection Molding
Attribute	Good Flow; Heat Stabilized; High Gloss; UV Stabilized
Resin ID	PA612

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.04	g/cm³	ISO 1183
Mechanical			
Flexural Strain at Flexural Strength	8	MPa	ISO 178
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	46.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	34.0	MPa	ISO 527-2
Nominal Tensile Strain at Break			
(50 mm/min, Type 1A) - Conditioned	>300	%	ISO 527-2
(50 mm/min, Type 1A)	>100	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	1250	MPa	ISO 178
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	5.0	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	25	%	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	1750	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	750	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min)	52.0	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	98	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	30	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	No Break		ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	140	°C	ISO 306
(A (10N), 50 °C/h)	200	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	145	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	60.0	°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
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	>1.0E+12	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	20	mm/min	ISO 3795
(2.00 mm)	20	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	725	°C	IEC 60695-2-12
(3.0 mm)	725	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	750	°C	IEC 60695-2-13
UL Information			
Flammability Classification			
(1.5 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	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	230 to 270	°C
Mold Temperature	60 to 90	°C