

Technical Data Sheet



Schulamid 612 FS 4104

Polyamide 612
LyondellBasell Industries
Engineering Plastics

Product Description

High impact modified Polyamide 612 with electrical neutral heat stabilization system for extrusion applications. Heat stabilization system with very low halogen content (<30 ppm).

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Corrosion Resistant • Fuel Resistant • Good Dimensional Stability	• Heat Aging Resistant • High Impact Resistance • High Viscosity • Low Temperature Toughness	• Low to No Water Absorption • Oil Resistant
Automotive Specifications	• GM GMW15702-435190 PA6/12		
Processing Method	• Extrusion		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.01	--	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (275°C/21.6 kg)	15	--	cm ³ /10min	ISO 1133
Viscosity Number	120	--	cm ³ /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	174000 (1200)	46400 (320)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Break)	5080 (35.0)	4350 (30.0)	psi (MPa)	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 200	> 250	%	ISO 527-2/1A/50
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	50 (110)	--	ft-lb/in ² (kJ/m ²)	
73°F (23°C)	50 ft-lb/in ² (110 kJ/m ²)	No Break	(kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	No Break	--		
73°F (23°C)	No Break	No Break		
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 358/30)	9860 (68.0)	--	psi (MPa)	ISO 2039-1
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
66 psi (0.45 MPa), Unannealed	158 (70.0)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	131 (55.0)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	212 (100)	--	°F (°C)	ISO 306/B50
--	392 (200)	--	°F (°C)	ISO 306/A50

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	> 1.0E+15	> 1.0E+12	ohms	IEC 60093
Volume Resistivity	> 1.0E+13	> 1.0E+10	ohms·m	IEC 62631-3-1
Comparative Tracking Index (Solution A)	550	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				
0.0787 in (2.00 mm)	1.2 (30)	--	in/min (mm/min)	ISO 3795
0.0787 in (2.00 mm)	1.2 (30)	--	in/min (mm/min)	FMVSS 302
Flammability Classification				IEC 60695-11-10, -20
0.06 in (1.5 mm)	HB	--		
0.12 in (3.0 mm)	HB	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.06 in (1.5 mm)	1250 (675)	--	°F (°C)	
0.12 in (3.0 mm)	1250 (675)	--	°F (°C)	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.06 in (1.5 mm)	1200 (650)	--	°F (°C)	
0.12 in (3.0 mm)	1200 (650)	--	°F (°C)	

Additional Information

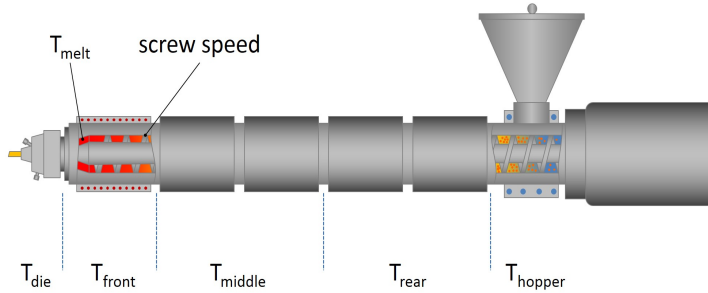
ISO 1874-PA 612-EAGHLW-12-010-N
DIN73378-PA 612-HIHL

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Extrusion	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Melt Temperature	446 to 518 °F	230 to 270 °C

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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