

Technical Data Sheet



Schulamid 612 FS 4003

Polyamide 612
LyondellBasell Industries
Engineering Plastics

Product Description

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

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Good Flow • Heat Stabilized	• High Gloss • UV Stabilized	
Automotive Specifications	• GM GMW15702-435190 PA6/12		
Processing Method	• Extrusion	• Injection Molding	
Resin ID (ISO 1043)	• PA612		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.04	--	g/cm ³	ISO 1183/A
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	254000 (1750)	109000 (750)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Yield)	6670 (46.0)	4930 (34.0)	psi (MPa)	ISO 527-2/1A/50
Tensile Strain (Yield)	5.0	25	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 100	> 300	%	ISO 527-2/1A/50
Flexural Modulus ¹	181000 (1250)	--	psi (MPa)	ISO 178
Flexural Stress ¹	7540 (52.0)	--	psi (MPa)	ISO 178
Flexural Strain at Flexural Strength	1160 (8.00)	--	psi (MPa)	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	14 (30)	--	ft-lb/in ² (kJ/m ²)	
73°F (23°C)	47 ft-lb/in ² (98 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		
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
66 psi (0.45 MPa), Unannealed	293 (145)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	140 (60.0)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	284 (140)	--	°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
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				
0.0787 in (2.00 mm)	0.79 (20)	--	in/min (mm/min)	ISO 3795
0.0787 in (2.00 mm)	0.79 (20)	--	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)	1340 (725)	--	°F (°C)	
0.12 in (3.0 mm)	1340 (725)	--	°F (°C)	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.06 in (1.5 mm)	1380 (750)	--	°F (°C)	
0.12 in (3.0 mm)	1380 (750)	--	°F (°C)	

Additional Information

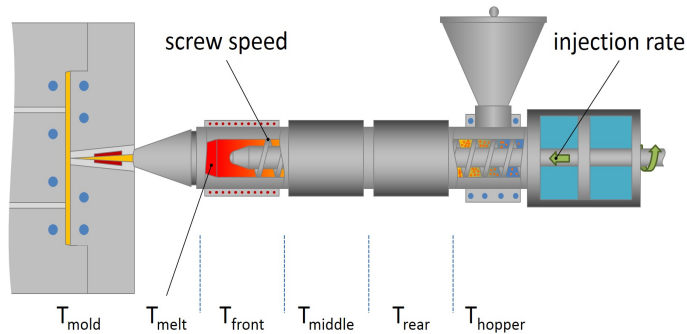
ISO 1874-PA 612-EAGHLW-18-020-N
DIN73378-PA 612-HIHL

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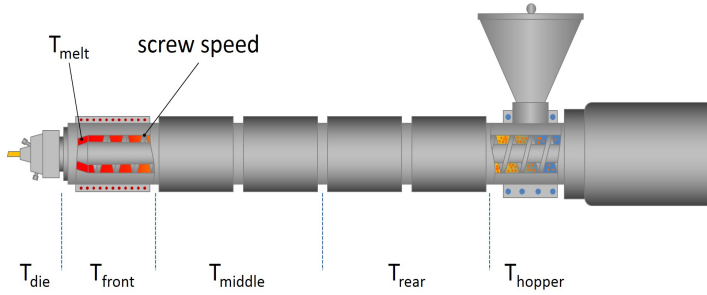
Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	140 to 194 °F	60 to 90 °C

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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

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Notes

¹ 0.079 in/min (2.0 mm/min)

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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