

Schulamid 612 FS 5003 MC

Polyamide 612
LyondellBasell Industries
Engineering Plastics

Product Description

Impact modified Polyamide 612 with heat stabilization. Specially designed for outside coating of metal tubes. Improved flow properties. High chemical resistance. High gloss surface.

General

Features	- Chemical Resistant - Heat Aging Resistant	- Impact Modified - Light Stabilized	Salt Water/Spray Resistant
Automotive Specifications	GM GMW15702-022191 PA612-I Color: 96.8001 Black		
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
Melt Volume-Flow Rate (MVR) (245°C/5.0 Kg)	10	--	cm ³ /10min	ISO 1133
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	276000 (1900)	120000 (830)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Yield)	7250 (50.0)	5080 (35.0)	psi (MPa)	ISO 527-2/1A/50
Tensile Strain (Yield)	5.5	22	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	35	300	%	ISO 527-2/1A/50
Flexural Modulus ¹	203000 (1400)	--	psi (MPa)	ISO 178
Flexural Stress ¹				ISO 178
7.1% Strain	8850 (61.0)	--	psi (MPa)	
3.5% Strain	6960 (48.0)	--	psi (MPa)	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F (-40°C)	5.7 (12)	--	ft·lb/in ² (kJ/m ²)	
-22°F (-30°C)	12 (25)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	36 (75)	55 (120)	ft·lb/in ² (kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F (-40°C)	No Break	--		
-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)	16200 (112)	--	psi (MPa)	ISO 2039-1



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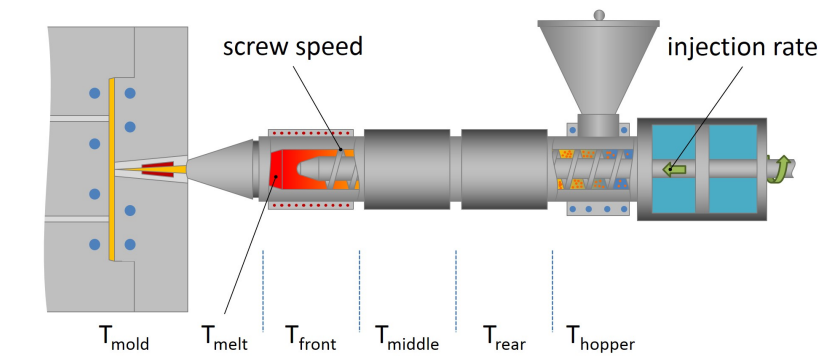
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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
66 Psi (0.45 Mpa), Unannealed	226 (108)	--	°F (°C)	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	194 (90.0)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	295 (146)	--	°F (°C)	ISO 306/B50
--	401 (205)	--	°F (°C)	ISO 306/A50
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				
0.06 In (1.5 Mm)	HB	--		IEC 60695-11-10, -20
0.12 In (3.0 Mm)	HB	--		
Glow Wire Flammability Index				
0.06 In (1.5 Mm)	1290 (700)	--	°F (°C)	IEC 60695-2-12
0.12 In (3.0 Mm)	1290 (700)	--	°F (°C)	
Glow Wire Ignition Temperature				
0.06 In (1.5 Mm)	1340 (725)	--	°F (°C)	IEC 60695-2-13
0.12 In (3.0 Mm)	1340 (725)	--	°F (°C)	



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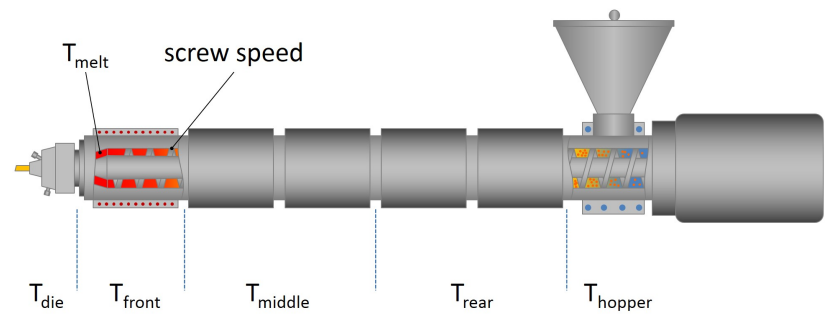


Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	122 to 194 °F	50 to 90 °C



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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	482 to 518 °F	250 to 270 °C

Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

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

