

Schulamid 6 MV 14 GW FR

Polyamide 6
LyondellBasell Industries
Engineering Plastics

Product Description

Medium viscosity flame-retardant Polyamide 6 grade; V-0; GWIT 775°C; halogen free

General

Features	- Antimony Free - Flame Retardant	- Halogen Free - Medium Viscosity
UL File Number	E86615	
Processing Method	Injection Molding	
Resin ID (ISO 1043)	PA 6 FR(30)	

Physical	Dry	Conditioned	Unit	Test Method
Density	1.19	--	g/cm ³	ISO 1183/A

Viscosity Number	145	--	cm ³ /g	ISO 307
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Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	580000 (4000)	203000 (1400)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Yield)	11600 (80.0)	6090 (42.0)	psi (MPa)	ISO 527-2/1A/50
Tensile Strain (Yield)	3.4	20	%	ISO 527-2/1A/50
Flexural Modulus	638000 (4400)	255000 (1760)	psi (MPa)	ISO 178
Flexural Stress	18900 (130)	6960 (48.0)	psi (MPa)	ISO 178
Flexural Strain at Flexural Strength	5.5	--	%	ISO 178

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	1.5 (3.2)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	1.5 (3.2)	3.4 (7.2)	ft·lb/in ² (kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	29 (60)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	33 ft·lb/in ² (70 kJ/m ²)	No Break	(kJ/m ²)	

Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
66 Psi (0.45 Mpa), Unannealed	388 (198)	--	°F (°C)	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	187 (86.0)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	397 (203)	--	°F (°C)	ISO 306/B50
--	421 (216)	--	°F (°C)	ISO 306/A50



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Thermal	Dry	Conditioned	Unit	Test Method
Ball Pressure Test (392°F (200°C))	Pass	--		IEC 60695-10-2
RTI Elec				UL 746B
0.015 In (0.38 Mm)	266 (130)	--	°F (°C)	
0.030 In (0.75 Mm)	266 (130)	--	°F (°C)	
0.06 In (1.5 Mm)	266 (130)	--	°F (°C)	
0.12 In (3.0 Mm)	266 (130)	--	°F (°C)	
RTI Imp				UL 746B
0.015 In (0.38 Mm)	176 (80.0)	--	°F (°C)	
0.030 In (0.75 Mm)	176 (80.0)	--	°F (°C)	
0.06 In (1.5 Mm)	185 (85.0)	--	°F (°C)	
0.12 In (3.0 Mm)	185 (85.0)	--	°F (°C)	
RTI Str				UL 746B
0.015 In (0.38 Mm)	221 (105)	--	°F (°C)	
0.030 In (0.75 Mm)	221 (105)	--	°F (°C)	
0.06 In (1.5 Mm)	239 (115)	--	°F (°C)	
0.12 In (3.0 Mm)	239 (115)	--	°F (°C)	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	> 1.0E+15	--	ohms	IEC 60093
Volume Resistivity	> 1.0E+13	--	ohms·m	IEC 62631-3-1
Comparative Tracking Index	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746A
0.030 In (0.75 Mm)	PLC 0	--		
0.06 In (1.5 Mm)	PLC 0	--		
0.12 In (3.0 Mm)	PLC 0	--		
Hot-wire Ignition (HWI)				UL 746A
0.030 In (0.75 Mm)	PLC 3	--		
0.06 In (1.5 Mm)	PLC 3	--		
0.12 In (3.0 Mm)	PLC 2	--		



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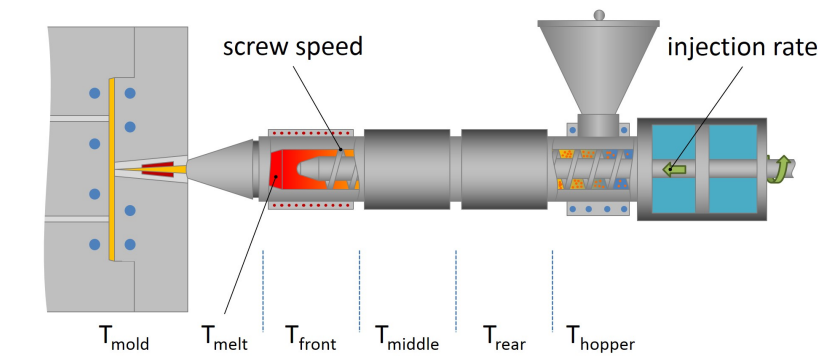
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Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				ISO 3795
0.0295 In (0.750 Mm), Self-extinguishing	0.0	--	in/min (mm/min)	
0.0591 In (1.50 Mm), Self-extinguishing	0.0	--	in/min (mm/min)	
0.118 In (3.00 Mm), Self-extinguishing	0.0	--	in/min (mm/min)	
Flame Rating				UL 94 IEC 60695-11-10, -20
0.016 In (0.40 Mm)	V-0	--		
0.030 In (0.75 Mm)	V-0	--		
0.06 In (1.5 Mm)	V-0	--		
0.12 In (3.0 Mm)	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.020 In (0.50 Mm)	1760 (960)	--	°F (°C)	
0.030 In (0.75 Mm)	1760 (960)	--	°F (°C)	
0.06 In (1.5 Mm)	1760 (960)	--	°F (°C)	
0.12 In (3.0 Mm)	1760 (960)	--	°F (°C)	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.020 In (0.50 Mm)	1430 (775)	--	°F (°C)	
0.030 In (0.75 Mm)	1430 (775)	--	°F (°C)	
0.06 In (1.5 Mm)	1430 (775)	--	°F (°C)	
0.12 In (3.0 Mm)	1430 (775)	--	°F (°C)	
Oxygen Index	31	--	%	ISO 4589-2



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Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Processing (Melt) Temp	464 to 500 °F	240 to 260 °C
Mold Temperature	140 to 194 °F	60 to 90 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	290 to 1160 psi	2.00 to 8.00 MPa
Screw Speed	< 591 in/min	< 15 m/min

Notes

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

