Technical Data Sheet

Schulamid 66 MV 5 FR

Polyamide 66
LyondellBasell Industries
Engineering Plastics

Product Description
Medium viscosity flame-retardant Polyamide 66 grade, V-0 by 0,38 mm; halogen free

General		
Features	• Antimony Free • Flame Retardant	• Halogen Free • Low Smoke Emission
UL File Number	• E86615	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA66 FR(30)	

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm³	ISO 1183/A
Viscosity Number	152	--	cm³/g	ISO 307
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	522000 (3600)	261000 (1800)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Yield)	11600 (80.0)	7980 (55.0)	psi (MPa)	ISO 527-2/1A/50
Tensile Strain (Yield)	4.9	18	%	ISO 527-2/1A/50
Flexural Modulus [1]	537000 (3700)	--	psi (MPa)	ISO 178
Flexural Stress				ISO 178
6.3% Strain	18900 (130)	--	psi (MPa)	
3.5% Strain [1]	16700 (115)	--	psi (MPa)	
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°f (-30°c)	1.4 (3.0)	--	ft·lb/in² (kJ/m²)	
73°f (23°c)	2.4 (5.0)	5.7 (12)	ft·lb/in² (kJ/m²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°f (-30°c)	12 (25)	--	ft·lb/in² (kJ/m²)	
73°f (23°c)	33 ft·lb/in² (70 kJ/m²)	No Break	(kJ/m²)	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				
66 Psi (0.45 Mpa), Unannealed	432 (222)	--	°F (°C)	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	176 (80.0)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	460 (238)	--	°F (°C)	ISO 306/B50
--	482 (250)	--	°F (°C)	ISO 306/A50

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Thermal	Dry	Conditioned	Unit	Test Method
Ball Pressure Test (257°f (125°c))	Pass	--		IEC 60695-10-2
RTI Elec				UL 746B
0.015 In (0.38 Mm)	284 (140)	--	°F (°C)	
0.030 In (0.75 Mm)	284 (140)	--	°F (°C)	
0.04 In (1.0 Mm)	302 (150)	--	°F (°C)	
0.06 In (1.5 Mm)	302 (150)	--	°F (°C)	
0.12 In (3.0 Mm)	302 (150)	--	°F (°C)	
RTI Imp				UL 746B
0.015 In (0.38 Mm)	221 (105)	--	°F (°C)	
0.030 In (0.75 Mm)	239 (115)	--	°F (°C)	
0.04 In (1.0 Mm)	239 (115)	--	°F (°C)	
0.06 In (1.5 Mm)	239 (115)	--	°F (°C)	
0.12 In (3.0 Mm)	239 (115)	--	°F (°C)	
RTI Str				UL 746B
0.015 In (0.38 Mm)	212 (100)	--	°F (°C)	
0.030 In (0.75 Mm)	230 (110)	--	°F (°C)	
0.04 In (1.0 Mm)	230 (110)	--	°F (°C)	
0.06 In (1.5 Mm)	230 (110)	--	°F (°C)	
0.12 In (3.0 Mm)	230 (110)	--	°F (°C)	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746A
0.015 In (0.38 Mm)	PLC 1	--		
0.030 In (0.75 Mm)	PLC 1	--		
0.04 In (1.0 Mm)	PLC 1	--		
0.06 In (1.5 Mm)	PLC 0	--		
0.12 In (3.0 Mm)	PLC 0	--		

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Electrical	Dry	Conditioned	Unit	Test Method
Hot-wire Ignition (HWI)				UL 746A
0.015 In (0.38 Mm)	PLC 4	--		
0.030 In (0.75 Mm)	PLC 4	--		
0.04 In (1.0 Mm)	PLC 4	--		
0.06 In (1.5 Mm)	PLC 2	--		
0.12 In (3.0 Mm)	PLC 2	--		

Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.015 In (0.38 Mm)	V-0	--		
0.03 In (0.8 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
0.030 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
0.016 In (0.40 Mm)	1430 (775)	--	°F (°C)	
0.030 In (0.75 Mm)	1430 (775)	--	°F (°C)	
Oxygen Index	35	--	%	ISO 4589-2

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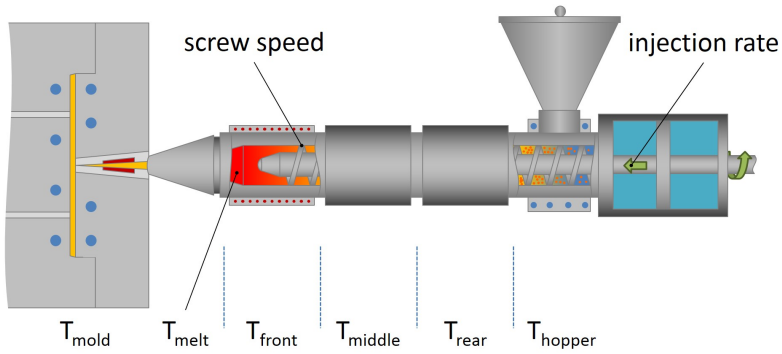

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Processing (Melt) Temp	500 to 536 °F	260 to 280 °C
Mold Temperature	140 to 212 °F	60 to 100 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	290 to 1160 psi	2.00 to 8.00 MPa
Screw Speed	591 in/min	15 m/min
Injection Notes		
Mould surface contacting melt should be of non-corrosive steel (content of chrome > 12%)		

Notes

[1] 0.079 in/min (2.0 mm/min)

Notes

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