

Technical Data Sheet

Schulamid 66 SK 1000

Polyamide 66
LyondellBasell Industries
Engineering Plastics

Product Description

Extrem high impact Polyamide 66

General

Features	- Low Temperature Toughness - Medium Viscosity	- Oil Resistant - Ultra High Impact Resistance	Ultra High Toughness
Automotive Specifications	- FORD WSK-M4D666-A Color: Black - FORD WSS-M4D666-A2 Color: Black	- GM GMW15702-013051 PA66-I Color: Natural - GM GMW15702-013051 PA66-I Color: 96.8001 Black	
UL File Number	E86615		
Processing Method	Injection Molding		
Resin ID (ISO 1043)	PA66-HI		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.07	--	g/cm ³	ISO 1183/A
Water Absorption				ISO 62
Equilibrium, 73°F (23°C), 50% Rh	2.0	--	%	

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	261000 (1800)	87000 (600)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Yield)	7250 (50.0)	4350 (30.0)	psi (MPa)	ISO 527-2/1A/50
Tensile Strain (Yield)	7.0	32	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 40	> 100	%	ISO 527-2/1A/50
Flexural Modulus ¹	239000 (1650)	--	psi (MPa)	ISO 178
Flexural Stress ¹	8990 (62.0)	--	psi (MPa)	ISO 178
Flexural Strain at Flexural Strength	7.0	--	%	ISO 178

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-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
-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	275 (135)	--	°F (°C)	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	140 (60.0)	--	°F (°C)	ISO 75-2/Af

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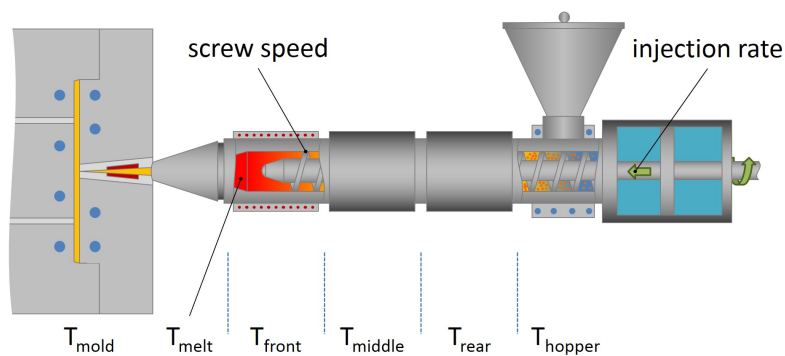
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Thermal	Dry	Conditioned	Unit	Test Method
Vicat Softening Temperature				
--	347 (175)	--	°F (°C)	ISO 306/B50
--	> 482 (> 250)	--	°F (°C)	ISO 306/A50
RTI Elec				UL 746B
0.06 In (1.5 Mm)	149 (65.0)	--	°F (°C)	
0.12 In (3.0 Mm)	149 (65.0)	--	°F (°C)	
RTI Imp				UL 746B
0.06 In (1.5 Mm)	149 (65.0)	--	°F (°C)	
0.12 In (3.0 Mm)	149 (65.0)	--	°F (°C)	
RTI Str				UL 746B
0.06 In (1.5 Mm)	149 (65.0)	--	°F (°C)	
0.12 In (3.0 Mm)	149 (65.0)	--	°F (°C)	
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)	1.5 (38)	--	in/min (mm/min)	ISO 3795
0.0787 In (2.00 Mm)	1.5 (38)	--	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)	1110 (600)	--	°F (°C)	
0.12 In (3.0 Mm)	1110 (600)	--	°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	518 to 554 °F	270 to 290 °C
Mold Temperature	140 to 212 °F	60 to 100 °C

Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

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