

Technical Data Sheet

Schulamid 6 MV HI

Polyamide 6
LyondellBasell Industries
Engineering Plastics

Product Description

Higher impact Polyamide 6 - standard grade

General

Features	<ul style="list-style-type: none"> Grease Resistant High Impact Resistance 	<ul style="list-style-type: none"> Low Temperature Toughness Medium Viscosity 	<ul style="list-style-type: none"> Oil Resistant
Automotive Specifications	<ul style="list-style-type: none"> GM QK 002621 P Color: Natural IMDS ID 4221280 Color: Natural 		
UL File Number	<ul style="list-style-type: none"> E86615 		
Processing Method	<ul style="list-style-type: none"> Injection Molding 		
Resin ID (ISO 1043)	<ul style="list-style-type: none"> PA6-I 		

Physical

	Dry	Conditioned	Unit	Test Method
Density	1.11	--	g/cm ³	ISO 1183/A
Water Absorption				ISO 62
Equilibrium, 73°F (23°C), 50% Rh	2.3	--	%	

Mechanical

	Dry	Conditioned	Unit	Test Method
Tensile Modulus	319000 (2200)	116000 (800)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Yield)	8700 (60.0)	5080 (35.0)	psi (MPa)	ISO 527-2/1A/50
Tensile Strain (Yield)	4.2	20	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 50	> 100	%	ISO 527-2/1A/50

Impact

	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	4.8 (10)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	7.6 (16)	29 (60)	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		

Hardness

	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 358/30)	16000 (110)	8700 (60.0)	psi (MPa)	ISO 2039-1

Thermal

	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
66 Psi (0.45 Mpa), Unannealed	284 (140)	--	°F (°C)	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	140 (60.0)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	347 (175)	--	°F (°C)	ISO 306/B50
--	419 (215)	--	°F (°C)	ISO 306/A50

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Thermal	Dry	Conditioned	Unit	Test Method
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
Comparative Tracking Index	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				
0.0787 In (2.00 Mm)	< 3.9 (< 100)	--	in/min (mm/min)	ISO 3795
0.0787 In (2.00 Mm)	< 3.9 (< 100)	--	in/min (mm/min)	FMVSS 302
Flammability Classification				IEC 60695-11-10, -20
0.030 In (0.75 Mm)	HB	--		
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)	1200 (650)	--	°F (°C)	
0.12 In (3.0 Mm)	1200 (650)	--	°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	482 to 518 °F	250 to 270 °C
Mold Temperature	140 to 194 °F	60 to 90 °C

Notes

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