

Technical Data Sheet

SCHULAMID® 66 MV HI K1416

Polyamide 66
Engineering Plastics

Product Description

Impact modified Polyamide 66

General

Features	• High Impact Resistance • Low Temperature Toughness	• Medium Viscosity • Oil Resistant
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA66I	

Physical	Dry	Conditioned	Unit	Test Method
Density	1.08	--	g/cm ³	ISO 1183/A
Molding Shrinkage	1.2 to 1.8	--	%	ISO 294-4
Water Absorption				ISO 62
Equilibrium, 73°F (23°C), 50% RH	2.1	--	%	

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	305000 (2100)	109000 (750)	psi (MPa)	ISO 527-2/1A/1
Tensile Stress (Yield)	7980 (55.0)	5800 (40.0)	psi (MPa)	ISO 527-2/1A/50
Tensile Strain (Yield)	5.5	25	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 40	> 100	%	ISO 527-2/1A/50
Flexural Modulus ¹	283000 (1950)	--	psi (MPa)	ISO 178
Flexural Stress ¹	10900 (75.0)	--	psi (MPa)	ISO 178
Flexural Strain at Flexural Strength	7.0	--	%	ISO 176

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	8.6 (18)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	31 (65)	45 (95)	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		

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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	284 (140)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	144 (62.0)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	> 482 (> 250)	--	°F (°C)	ISO 306/A50
--	410 (210)	--	°F (°C)	ISO 306/B50
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)	0.91 (23)	--	in/min (mm/min)	ISO 3795
0.0787 in (2.00 mm)	0.91 (23)	--	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)	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 %
Suggested Max Regrind	20 %	20 %
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.