

Technical Data Sheet

RW *Schulamid* 6 MV SHI NATURAL



Polyamide 6

**Product Description**

High impact modified Polyamide 6

**Processing Method** Injection Molding

**Attribute** Grease Resistant; Medium Viscosity; Oil Resistant; Ultra High Impact Resistance; Ultra High Toughness

**Resin ID** PA6-I

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Density, (Method A)	1.08	g/cm <sup>3</sup>	ISO 1183
<b>Mechanical</b>			
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	50.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	30.0	MPa	ISO 527-2
Nominal Tensile Strain at Break			
(50 mm/min, Type 1A) - Conditioned	>100	%	ISO 527-2
(50 mm/min, Type 1A)	>50	%	ISO 527-2
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	4.0	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	25	%	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	1800	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	600	MPa	ISO 527-1
<b>Impact</b>			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	50	kJ/m <sup>2</sup>	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	25	kJ/m <sup>2</sup>	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	No Break		ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
<b>Thermal</b>			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	165	°C	ISO 306
(A (10N), 50 °C/h)	210	°C	ISO 306

Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	125	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	50.0	°C	ISO 75-2/A

**Electrical**

Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
- Conditioned	>1.0E+10	ohm*m	IEC 62631-3-1
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	>1.0E+12	ohm	IEC 60093

**Flammable**

Burning Rate			
(2.00 mm)	<100	mm/min	FMVSS 302
(2.00 mm)	<100	mm/min	ISO 3795

**Additional Information**

Water Absorption 23C/50RH	2.3	%	ISO 62
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**UL Information**

Flammability Classification			
(0.75 mm)	HB		IEC 60695-11-10, -20
(1.5 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	HB		IEC 60695-11-10, -20
UL File Number	E86615		

<b>Injection Parameters</b>	<b>Nominal Value</b>	<b>Units</b>
Drying Time	3.0 to 4.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.040 to 0.10	%
Processing (Melt) Temp	250 to 270	°C
Mold Temperature	60 to 90	°C