

## Technical Data Sheet

**Schulamid 6 NV12 NAT**

Polyamide 6

**Product Description**

*Schulamid 6 NV12 NAT* is a Polyamide 6 material and is typically used in Injection Molding applications. Features include: Good Surface Finish, High Flow, Low Viscosity, and Oil Resistant.

<b>Processing Method</b>	Injection Molding
<b>Attribute</b>	Good Surface Finish; High Flow; Low Viscosity; Oil Resistant
<b>Resin ID</b>	PA6

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Density, (Method A)	1.13	g/cm <sup>3</sup>	ISO 1183
Viscosity Number	130	cm <sup>3</sup> /g	ISO 307
<b>Mechanical</b>			
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	85.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	45.0	MPa	ISO 527-2
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	4.5	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	18	%	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	3000	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	1100	MPa	ISO 527-1
<b>Impact</b>			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	6.0	kJ/m <sup>2</sup>	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	3.0	kJ/m <sup>2</sup>	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	20	kJ/m <sup>2</sup>	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>Hardness</b>			
Ball Indentation Hardness			
(H 358/30)	140	MPa	ISO 2039-1
(H 358/30) - Conditioned	85.0	MPa	ISO 2039-1
<b>Thermal</b>			

<b>Vicat Softening Temperature</b>			
(B (50N), 50 °C/h)	195	°C	ISO 306
(A (10N), 50 °C/h)	205	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	190	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	60.0	°C	ISO 75-2/A
<b>RTI Elec</b>			
(1.5 mm)	130	°C	UL 746B
(3.0 mm)	130	°C	UL 746B
(0.75 mm)	130	°C	UL 746B
<b>RTI Str</b>			
(1.5 mm)	70.0	°C	UL 746B
(3.0 mm)	70.0	°C	UL 746B
(0.75 mm)	65.0	°C	UL 746B
<b>Electrical</b>			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
- Conditioned	>1.0E+10	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	>1.0E+12	ohm	IEC 60093
<b>Flammable</b>			
<b>Burning Rate</b>			
(2.00 mm)	0.0	mm/min	ISO 3795
(2.00 mm)	0.0	mm/min	FMVSS 302
<b>Glow Wire Flammability Index</b>			
(1.5 mm)	850	°C	IEC 60695-2-12
(3.0 mm)	850	°C	IEC 60695-2-12
<b>Additional Information</b>			
Water Absorption 23C/50RH	2.5	%	ISO 62
<b>UL Information</b>			
<b>Flammability Classification</b>			
(0.75 mm)	HB		IEC 60695-11-10, -20
(1.5 mm)	V-2		IEC 60695-11-10, -20
(3.0 mm)	V-2		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