

## Technical Data Sheet

**Schulaform AF9 NAT**

Acetal (POM) Copolymer

**Product Description**

Aramid fibre filled POM-Compound with improved abrasion resistance

<b>Processing Method</b>	Injection Molding
<b>Attribute</b>	Good Abrasion Resistance
<b>Filler/Reinforcement</b>	Aramid Fiber

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Volume Flow Rate, (190 °C/2.16 kg)	4.5	cm <sup>3</sup> /10 min	ISO 1133
Density, (Method A)	1.41	g/cm <sup>3</sup>	ISO 1183
<b>Mechanical</b>			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	55.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	10	%	ISO 527-2
Tensile Elongation at Break	12	%	ASTM D638
Tensile Modulus, (1 mm/min, Type 1A)	2900	MPa	ISO 527-1
<b>Impact</b>			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Notch A)	5.0	kJ/m <sup>2</sup>	ISO 179
(-30 °C, Type 1, Notch A)	3.0	kJ/m <sup>2</sup>	ISO 179
Charpy Impact Strength - Unnotched			
(-30 °C, Type 1)	40	kJ/m <sup>2</sup>	ISO 179
(23 °C, Type 1)	45	kJ/m <sup>2</sup>	ISO 179
Notched Izod Impact, (3.20 mm, Method A)	61	J/m	ASTM D256
<b>Hardness</b>			
Ball Indentation Hardness, (H 132/10)	132	MPa	ISO 2039-1
<b>Thermal</b>			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	147	°C	ISO 306
(A (10N), 50 °C/h)	163	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	156	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	100	°C	ISO 75-2/A
<b>Electrical</b>			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	IEC 60112

Surface Resistivity	>1.0E+15	ohm	IEC 60093
<b>Flammable</b>			
Burning Rate			
(2.00 mm)	40	mm/min	ISO 3795
(2.00 mm)	40	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	625	°C	IEC 60695-2-12
(3.0 mm)	625	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	650	°C	IEC 60695-2-13
(3.0 mm)	650	°C	IEC 60695-2-13
<b>UL Information</b>			
Flammability Classification			
(1.5 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	HB		IEC 60695-11-10, -20
<b>Injection Parameters</b>			
	<b>Nominal Value</b>	<b>Units</b>	
Drying Time	2.0 to 4.0	hr	
Drying Temperature	100	°C	
Suggested Max Moisture	0.040 to 0.10	%	
Processing (Melt) Temp	190 to 220	°C	
Mold Temperature	60 to 120	°C	