

## Technical Data Sheet

**Schulamid 6 GF30 4DD BLACK 96.8001**

Polyamide 6

**Product Description**

30% glass fibre reinforced flame-retardant Polyamide 6 grade; halogen free; heat stabilized; very good surface appearance

<b>Processing Method</b>	Injection Molding
<b>Attribute</b>	Halogen Free
<b>Additive</b>	Flame Retardant
<b>Filler/Reinforcement</b>	Glass Fiber, 30%
<b>Resin ID</b>	PA6 GF30 FR(40)

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Density, (Method A)	1.43	g/cm <sup>3</sup>	ISO 1183
Viscosity Number	145	cm <sup>3</sup> /g	ISO 307
<b>Mechanical</b>			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	3.0	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	6.0	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	140	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	95.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	12000	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	6500	MPa	ISO 527-1
<b>Impact</b>			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	12	kJ/m <sup>2</sup>	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	9.0	kJ/m <sup>2</sup>	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	16	kJ/m <sup>2</sup>	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	70	kJ/m <sup>2</sup>	ISO 179
(-30 °C, Type 1, Edgewise)	60	kJ/m <sup>2</sup>	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	70	kJ/m <sup>2</sup>	ISO 179
<b>Hardness</b>			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
<b>Thermal</b>			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	203	°C	ISO 306
(A (10N), 50 °C/h)	212	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	215	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	204	°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
Dielectric Strength, (in Oil, 1.00 mm, 23 °C, 2000 V/sec)	28	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	475	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	>1.0E+12	ohm	IEC 60093

#### Flammable

Burning Rate			
(0.750 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(1.50 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(3.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
Glow Wire Flammability Index			
(0.75 mm)	960	°C	IEC 60695-2-12
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(0.75 mm)	750	°C	IEC 60695-2-13
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	750	°C	IEC 60695-2-13
Oxygen Index	32	%	ISO 4589-2

#### UL Information

Flammability Classification			
(0.75 mm)	V-0		IEC 60695-11-10, -20
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615-103366094		

#### Injection Parameters

	Nominal Value	Units
Drying Time	4.0 to 6.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.040 to 0.10	%
Screw Speed	<300	mm/sec
Processing (Melt) Temp	240 to 260	°C
Hopper Temperature	70	°C
Injection Rate	Moderate	
Mold Temperature	60 to 90	°C