

Technical Data Sheet



Schulamid 6 MV 14 FR 4 K1681 DEEP BLACK 96.8086

Polyamide 6
LyondellBasell Industries
Engineering Plastics

Product Description

Medium viscosity flame-retardant Polyamide 6 grade (V-2); without PBDE

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
UL File Number	• E86615		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA6 FR(17+30)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.26 g/cm ³	1.26 g/cm ³	ISO 1183/A
Viscosity Number	133 cm ³ /g	133 cm ³ /g	ISO 307
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	471000 psi	3250 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	9080 psi	62.6 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	3.3 %	3.3 %	ISO 527-2/1A/50
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	2.3 ft·lb/in ²	4.8 kJ/m ²	
73°F (23°C)	2.5 ft·lb/in ²	5.3 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	24 ft·lb/in ²	50 kJ/m ²	
73°F (23°C)	26 ft·lb/in ²	54 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	356 °F	180 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	135 °F	57.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	383 °F	195 °C	ISO 306/B50
--	417 °F	214 °C	ISO 306/A50
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	1.0E+15 ohms	1.0E+15 ohms	IEC 60093
Volume Resistivity	1.0E+13 ohms·m	1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index	300 V	300 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			
0.016 in (0.40 mm)	V-2	V-2	UL 94 IEC 60695-11-10, -20
0.031 in (0.8 mm)	V-2	V-2	UL 94
0.06 in (1.6 mm)	V-2	V-2	UL 94 IEC 60695-11-10, -20
0.13 in (3.2 mm)	V-2	V-2	UL 94 IEC 60695-11-10, -20
0.03 in (0.8 mm)	V-2	V-2	IEC 60695-11-10, -20

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Glow Wire Flammability Index			IEC 60695-2-12
0.015 in (0.38 mm)	1760 °F	960 °C	
0.030 in (0.75 mm)	1710 °F	930 °C	
0.06 in (1.5 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.015 in (0.38 mm)	1710 °F	930 °C	
0.030 in (0.75 mm)	1710 °F	930 °C	
0.06 in (1.5 mm)	1520 °F	825 °C	
0.12 in (3.0 mm)	1520 °F	825 °C	
Oxygen Index	21 %	21 %	ISO 4589-2

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Processing (Melt) Temp	464 to 500 °F	240 to 260 °C
Mold Temperature	140 to 194 °F	60 to 90 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	290 to 1160 psi	2.00 to 8.00 MPa
Screw Speed	< 591 in/min	< 15 m/min

Injection Notes

Mould surface contacting melt should be of non-corrosive steel (content of chrome > 12%)

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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