Technical Data Sheet

SCHULAFORM® 9 D LE NATURAL

Acetal (POM) Copolymer
Engineering Plastics

Product Description		
Easy flow Polyoxymethylene grade with low emissions for automotive applications		
General		
Features	• Good Flow	• Low Emissions
Uses	• Automotive Applications	
Processing Method	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.41 g/cm³	1.41 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	21 cm³/10min	21 cm³/10min	ISO 1133
Molding Shrinkage	1.5 to 2.5 %	1.5 to 2.5 %	ISO 294-4
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	406000 psi	2800 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	8990 psi	62.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	9.0 %	9.0 %	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)	3.3 ft·lb/in²	7.0 kJ/m²	
73°F (23°C)	3.8 ft·lb/in²	8.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Ball Indentation Hardness (H 358/30)	20500 psi	141 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	311 °F	155 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	205 °F	96.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	324 °F	162 °C	ISO 306/A50
--	297 °F	147 °C	ISO 306/B50
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 (CTI)	600 V	600 V	UL 746
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Burning Rate			
0.0787 in (2.00 mm)	2.4 in/min	60 mm/min	ISO 3795
0.0787 in (2.00 mm)	2.4 in/min	60 mm/min	FMVSS 302
Flame Rating			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

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Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Emission of Organic Compounds			
VDA 277, TVOC (total organic compounds)	< 5.00 µgC/g	< 5.00 µgC/g	VDA 277
VDA 278, Fog (condensable compounds)	< 5.00 µgC/g	< 5.00 µgC/g	VDA 278
VDA 278, VOC (volatile organic compounds)	< 0.950 µgC/g	< 0.950 µgC/g	VDA 278
Formaldehyde Emissions	< 2.00 mg/kg	< 2.00 mg/kg	VDA 275
Odor	3.00	3.00	VDA 270

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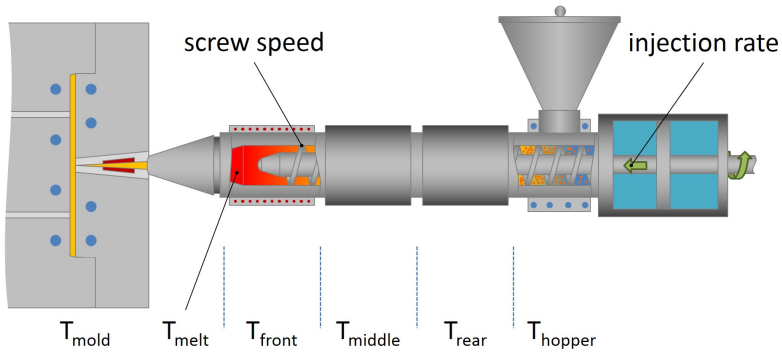

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	212 °F	100 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	374 to 410 °F	190 to 210 °C
Mold Temperature	140 to 248 °F	60 to 120 °C

Notes

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