Technical Data Sheet

SCHULADUR® A MV 14 FR 1

Polybutylene Terephthalate
Engineering Plastics

Product Description
Flame retardant halogenated PBT compound without PBDE

General		
Features	• Flame Retardant	• Good Dimensional Stability
Processing Method	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.42 g/cm³	1.42 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	21 cm³/10min	21 cm³/10min	ISO 1133
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% RH	0.50 %	0.50 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	421000 psi	2900 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	8270 psi	57.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	5.0 %	5.0 %	ISO 527-2/1A/5
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	2.1 ft·lb/in²	4.5 kJ/m²	
73°F (23°C)	2.4 ft·lb/in²	5.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	24 ft·lb/in²	50 kJ/m²	
73°F (23°C)	33 ft·lb/in²	70 kJ/m²	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	257 °F	125 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	156 °F	69.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	423 °F	217 °C	ISO 306/A50
--	334 °F	168 °C	ISO 306/B50
Ball Pressure Test (257°F (125°C))	Pass	Pass	IEC 60695-10-2
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	325 V	325 V	IEC 60112
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Burning Rate			ISO 3795
0.0295 in (0.750 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	
0.0591 in (1.50 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	
0.118 in (3.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	
Flame Rating			UL 94 IEC 60695-11-10, -20
0.030 in (0.75 mm)	V-0	V-0	
0.06 in (1.5 mm)	V-0	V-0	
0.12 in (3.0 mm)	• V-0 • 5VA	• V-0 • 5VA	
0.08 in (2.0 mm)	5VB	5VB	

Technical Data Sheet

SCHULADUR® A MV 14 FR 1

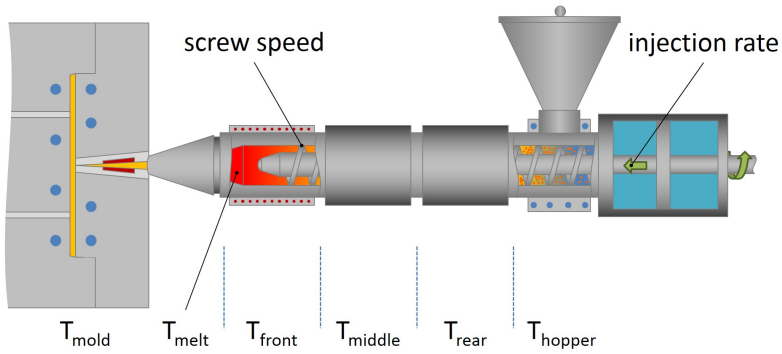
Polybutylene Terephthalate
Engineering Plastics

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in (0.75 mm)	1760 °F	960 °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
0.030 in (0.75 mm)	1160 °F	625 °C	
0.06 in (1.5 mm)	1160 °F	625 °C	
0.12 in (3.0 mm)	1160 °F	625 °C	
Oxygen Index	27 %	27 %	ISO 4589-2

Technical Data Sheet

SCHULADUR® A MV 14 FR 1

Polybutylene Terephthalate
Engineering Plastics



Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Suggested Max Regrind	25 %	25 %
Processing (Melt) Temp	482 to 500 °F	250 to 260 °C
Mold Temperature	158 to 194 °F	70 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 surfaces in contact with melt should be of non-corrosive steel, chrome content >12%		

Notes

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