Technical Data Sheet

POLYFORT® FIP 20 M K1033

Polypropylene Homopolymer
Engineering Plastics

Product Description
20 % mineral filled PP Homopolymer

General	
Filler / Reinforcement	• Mineral, 20% Filler by Weight
Features	• Homopolymer
Processing Method	• Injection Molding
Part Marking Code (ISO 11469)	• >PP-M<

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm³	1.05 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	20 cm³/10min	20 cm³/10min	ISO 1133
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% RH	0.040 %	0.040 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	247000 psi	1700 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	3770 psi	26.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	7.0 %	7.0 %	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)	1.4 ft·lb/in²	3.0 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)	7.6 ft·lb/in²	16 kJ/m²	
73°F (23°C)	29 ft·lb/in²	61 kJ/m²	
Notched Izod Impact (Area) (73°F (23°C))	1.90 ft·lb/in²	4.00 kJ/m²	ASTM D256
Notched Izod Impact Strength (73°F (23°C))	1.4 ft·lb/in²	3.0 kJ/m²	ISO 180/1A
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Ball Indentation Hardness (H 358/30)	9280 psi	64.0 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	221 °F	105 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	144 °F	62.0 °C	ISO 75-2/Af
Vicat Softening Temperature	201 °F	94.0 °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
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302

Additional Information
1.) Not for use in food contact applications
2.) Not for use in medical or pharmaceutical applications

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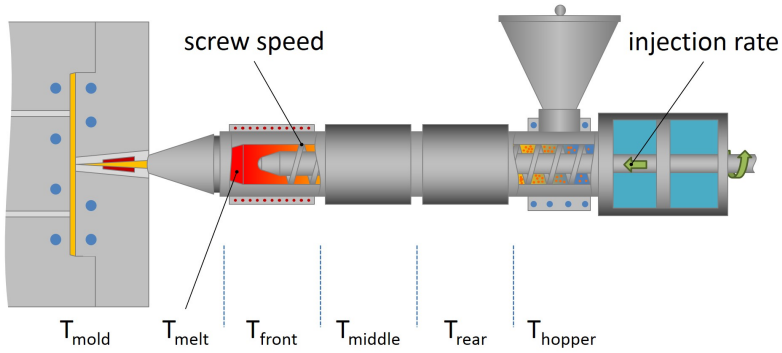

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	104 to 158 °F	40 to 70 °C

Injection Notes

Drying normally not necessary.
Injection molding parameters also influence emission properties, which are often required for automotive interior applications. Generally speaking, the emission, odor and fogging behavior of finished parts is improved by lowering the melt temperature, reducing residence time and avoiding high shear stress.

Notes

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