

Technical Data Sheet

GAPEX®

HP RPP40EB86HB

Polypropylene Homopolymer
Engineering Plastics



General			
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight		
Features	• Chemically Coupled • Homopolymer		
Appearance	• Almond		
Forms	• Pellets		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.28	1.28 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.5 g/10 min	3.5 g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	3.0E-3 in/in	0.30 %	
Across Flow	9.0E-3 in/in	0.90 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield, 73°F (23°C))	14500 psi	100 MPa	ASTM D638
Tensile Elongation (Break, 73°F (23°C))	4.0 %	4.0 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : 73°F (23°C)	1.17E+6 psi	8070 MPa	
Tangent : 73°F (23°C)	1.30E+6 psi	8960 MPa	
Flexural Strength (Yield, 73°F (23°C))	22000 psi	152 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	1.8 ft·lb/in	96 J/m	ASTM D256
Unnotched Izod Impact (73°F (23°C))	10 ft·lb/in	530 J/m	ASTM D256
Gardner Impact	3.00 in·lb	0.339 J	ASTM D5420

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	322 °F	161 °C	
264 psi (1.8 MPa), Unannealed	310 °F	154 °C	

Additional Information			
Filler Content, ASTM D2584: 44%			

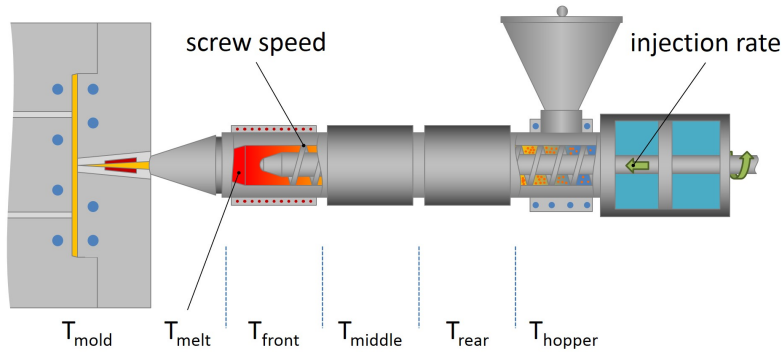
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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	160 to 180 °F	71 to 82 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	430 to 460 °F	221 to 238 °C
Middle Temperature	440 to 470 °F	227 to 243 °C
Front Temperature	450 to 500 °F	232 to 260 °C
Nozzle Temperature	450 to 500 °F	232 to 260 °C
Processing (Melt) Temp	430 to 460 °F	221 to 238 °C
Mold Temperature	100 to 150 °F	38 to 66 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	20.0 to 50.0 psi	0.138 to 0.345 MPa
Cushion	0.200 to 0.500 in	5.08 to 12.7 mm

Notes

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