

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 <sup>3</sup>	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	

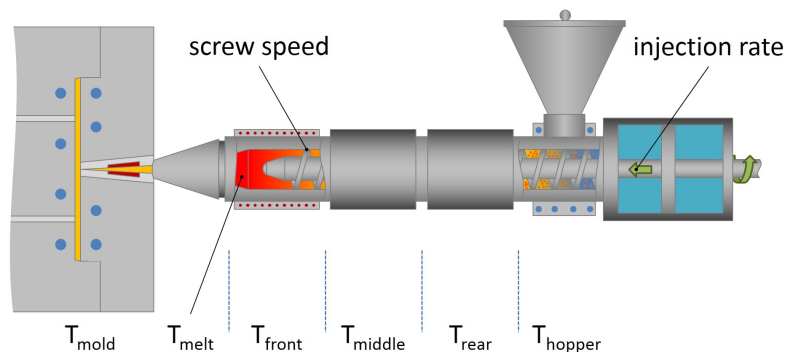
**Additional Information**

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.