



PRODUCT INFORMATION

## HAIPLEN EP100 MF3

Polypropylene copolymer, mineral filled and impact modified, with excellent stiffness/impact ratio. It combines good flow, high impact resistance, low thermal expansion with good scratch resistance. It is designed for painted and non-painted automotive parts.

**ISO short Form** ISO 1043: PP-MD15 Pellets

### Key Features

- Good impact - stiffness balance
- Designed for injection moulding applications
- High flow
- Mineral filled
- Designed for automotive applications

### Availability

- LP: laser printable
- L: UV stabilized
- H: heat stabilized
- D: detergent stabilized
- All colours

### Process

- INJECTION MOULDING

### Application

- General purpose applications
- Automotive

Property	Method	Unit	Value	Condition	State
<b>PHYSICAL</b>					
Density (+23°C)	ISO 1183	g/cm <sup>3</sup>	1,02		
Water Absorption (24h / +23°C)	ISO 62	%	0,05		
Mould Shrinkage (Parallel)	Internal method	%	0,6 - 0,8		
Mould Shrinkage (Normal)	Internal method	%	0,8 - 1,0		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	20	230 °C - 2,16 kg	
<b>MECHANICAL</b>					
Tensile Modulus	ISO 527-1,2	MPa	1700	ISO 527, speed 1 mm/min	
Elongation at Yield	ISO 527-1,2	%	4	ISO 527, speed 1 mm/min	
Tensile Yield Strength	ISO 527-1,2	MPa	25	ISO 527, speed 1 mm/min	
Elongation at Break	ISO 527-1,2	%	35	ISO 527, speed 1 mm/min	



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Flexural Modulus	ISO 178	MPa	1700	ISO 178, speed 2 mm/min
Flexural Max Strength	ISO 178	MPa	26	ISO 178, speed 2 mm/min
IZOD Notched Impact	ASTM D256	J/m	120	ASTM D256 -20 °C
IZOD Notched Impact	ASTM D256	J/m	170	ASTM D256 0 °C
IZOD Notched Impact	ASTM D256	J/m	250	ASTM D256 +23 °C

**THERMAL**

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	135	50 °C / h
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	55	50 °C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	63	120 °C / h
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	110	120 °C / h

**FLAMMABILITY**

Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	<100	FMVSS 302
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**INJECTION MOULDING**

	Value
Drying Temperature (Desiccant Dryer)	70 - 80°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Regrind	< 10%
Melt Temperature	190 - 230°C
Feed Temperature	150°C
Rear Temperature	175°C
Middle Temperature	200°C
Front Temperature	210°C
Nozzle Temperature	215°C
Mould Temperature	30 - 70°C
Injection Rate	Slow to Medium
Injection Pressure	50 - 120 Mpa
Packing Pressure	30 - 100 Mpa
Back Pressure	5 - 10 Mpa
Screw Revolving Speed	< 300 mm/sec
Cushion	< 5 mm
Vent Depth	0,05 mm



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**Notes**

It is normally not necessary to dry HAIPLLEN compounds, however should there be surface moisture (condensate) on the moulding compound as a result of incorrect storage, drying process is required. HAIPLLEN must be stored indoors at a temperature below 40°C avoiding humidity and direct sunlight as well. HAIPLLEN can be processed on a standard injection moulding unit. A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition and 20% metering. When the heating cylinder is completely purged of HAIPLLEN material the machine may be shut down.

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