



PRODUCT INFORMATION

HAIPLLEN H10 G4 BA

Polypropylene homopolymer 20% glass fibres reinforced chemically coupled to the resin matrix, low flow and good mechanical properties.

ISO short Form ISO 1043: PP-GF20 Pellets

Key Features

- Good impact - stiffness balance
- Designed for injection moulding applications
- Glass fibres reinforced
- Low flow

Availability

- XO: low odour emission
- XMT: long-term service stability for contact with copper
- LP: laser printable
- L: UV stabilized
- HT: high resistance to heat
- H: heat stabilized
- D: detergent stabilized
- All colours

Process

- INJECTION MOULDING

Application

- Power tools
- Household
- General purpose applications
- Furniture
- Electronic
- Electrical
- Consumer
- Building
- Automotive

Property	Method	Unit	Value	Condition	State
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PHYSICAL

Density (+23°C)	ISO 1183	g/cm ³	1,05		
Filler content	ISO 3451	%	20	600°C - 1 h	



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Water Absorption (24h / +23°C)	ISO 62	%	0,05	
Mould Shrinkage (Parallel)	Internal method	%	0,35 - 0,65	
Mould Shrinkage (Normal)	Internal method	%	0,85 - 0,95	
Melt Flow Rate (MFR)	ISO 1133	g/10 min	3	230°C - 2,16 kg

MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	4500	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	3,5	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	75	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	4100	Speed 2 mm/min
Flexural Break Strength	ISO 178	MPa	85	Speed 10 mm/min
IZOD Notched Impact (+23°C)	ASTM D256	J/m	90	
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m ²	8,5	
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m ²	40	

THERMAL

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	155	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	135	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	130	
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	153	

FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	HB	
Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	< 80	Thickness > 1,5 mm
Oxygen index	ASTM D2863	%	21	

INJECTION MOULDING

	Value
Drying Temperature (Desiccant Dryer)	80 - 100°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	0,2%
Melt Temperature	220 - 250°C



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Feed Temperature	50°C
Rear Temperature	200°C
Middle Temperature	220°C
Front Temperature	230°C
Nozzle Temperature	240°C
Mould Temperature	40 - 60°C
Injection Rate	50 - 150 mm/sec
Injection Pressure	60 - 120 MPa
Packing Pressure	30 - 80 MPa
Back Pressure	As low as possible (<0,3 MPa)
Screw Revolving Speed	25 - 50 rpm
Screw Revolving Speed	50 rpm @ Diameter 40 mm
Screw Revolving Speed	35 rpm @ Diameter 55 mm
Screw Revolving Speed	25 rpm @ Diameter 75 mm
Cushion	5 - 8 mm
Vent Depth	0,05 mm

Notes It is normally not necessary to dry HAIPLEN compounds, however should there be surface moisture (condensate) on the moulding compound as a result of incorrect storage, drying process is required. HAIPLEN must be stored indoors at a temperature below 40°C / 105°F avoiding humidity and direct sunlight as well. HAIPLEN 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 HAIPLEN material the machine may be shut down. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine or extruder size, part geometry and design.