PRODUCT INFORMATION

HAIPLEN H50 T8

Polypropylene homopolymer medium flow 40% talcum filled, high stiffness.

ISO short ISO 1043: PP-MD40
Form Pellets

Key Features

- High stiffness
- Designed for injection moulding applications
- Good flowability
- Mineral filled

Availability

- XO: low odour emission
- W: lubricated
- U: scratch resistant
- XMT: long-term service stability for contact with copper
- LP: laser printable
- L: UV stabilized
- HT: high resistance to heat
- H: heat stabilized
- FA: food approval
- D: detergent stabilized
- All colours

Process

- INJECTION MOULDING

Application

- Power tools
- Household
- Garden furniture
- Furniture
- Consumer
- Building
- Automotive

Property	Method	Unit	Value	Condition	State
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,24		
Filler content	ISO 3451	%	40	550°C - 1h	

PRODUCT INFORMATION

HAIPLEN H50 T8

Water Absorption (24h / +23°C)	ISO 62	%	0,05	
Mould Shrinkage (Parallel)	Internal method	%	0,9	
Mould Shrinkage (Normal)	Internal method	%	0,9	
Melt Flow Rate (MFR)	ISO 1133	g/10 min	10	230°C - 2,16 kg
MECHANICAL				
Tensile Modulus	ISO 527-1,2	MPa	4400	Speed 1 mm/min
Elongation at Yield	ISO 527-1,2	%	3,5	Speed 50 mm/min
Tensile Yield Strength	ISO 527-1,2	MPa	32	Speed 50 mm/min
Elongation at Break	ISO 527-1,2	%	8	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	29	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	3800	Speed 2 mm/min
Flexural Max Strength	ISO 178	MPa	52	Speed 2 mm/min
IZOD Notched Impact (+23°C)	ASTM D256	J/m	28	
IZOD Notched Impact (-25°C)	ASTM D256	J/m	20	
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	3,6	
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	22	
THERMAL				
Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	155	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	105	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	95	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	6x10E(-5)	
FLAMMABILITY				
Flame Behaviour (1,6 mm)	UL94	Class	HB	
Glow Wire Flammability Index-GWFI (1 mm)	IEC 60695-2-12	°C	650	
Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	< 80	Thickness > 1,5 mm

INJECTION MOULDING	**Value**
Drying Temperature (Circulating Air Oven)	80 - 90°C

PRODUCT INFORMATION

HAIPLEN H50 T8

Drying Temperature (Desiccant Dryer)	80 - 90°C
Drying Time (Circulating Air Oven)	3 - 6 hours
Drying Time (Desiccant Dryer)	2 - 4 hours
Melt Temperature	190 - 220°C
Feed Temperature	160°C
Rear Temperature	180°C
Middle Temperature	190°C
Front Temperature	200°C
Nozzle Temperature	210°C
Mould Temperature	30 - 50°C
Injection Rate	Medium to Fast
Injection Pressure	70 - 120 Mpa
Packing Pressure	40 - 100 Mpa
Back Pressure	5 - 10 Mpa
Screw Revolving Speed	< 300 mm/sec
Cushion	< 5 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 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.