PRODUCT INFORMATION

HAIPLEN EP50 T4

Polypropylene copolymer, medium flow, 20% talcum filled.

ISO short ISO 1043: PP-MD20
Form Pellets

Key Features

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

Availability

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

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical
- Consumer
- Building
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	17		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	>600		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,04		
Filler content	ISO 3451	%	20	600°C - 1 h	
Water Absorption (24h / +23°C)	ISO 62	%	0,05		
Mould Shrinkage (Parallel)	Internal method	%	1,1		
Mould Shrinkage (Normal)	Internal method	%	1,1		

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Melt Flow Rate (MFR)	ISO 1133	g/10 min	10	230°C - 2,16 kg
MECHANICAL				
Tensile Yield Strength	ISO 527-1,2	MPa	30	Speed 50 mm/min
Elongation at Break	ISO 527-1,2	%	20	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	2000	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	40	+0°C
IZOD Notched Impact	ASTM D256	J/m	30	-20°C
IZOD Notched Impact	ASTM D256	J/m	50	+23°C
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	6,0	
THERMAL				
Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	145	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	80	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	65	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	6X10exp(-5)	
FLAMMABILITY				
Flame Behaviour (1,6 mm)	UL94	Class	HB	
Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	<100	Thickness 2 mm

INJECTION MOULDING	**Value**
Drying Temperature (Circulating Air Oven)	70 - 80°C
Drying Temperature (Desiccant Dryer)	70 - 80°C
Drying Time (Circulating Air Oven)	2 - 6 hours
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	< 0,2 %
Suggested Max Regrind	< 15%
Melt Temperature	200 - 240°C
Feed Temperature	50°C
Rear Temperature	190°C
Middle Temperature	210°C
Front Temperature	230°C

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Nozzle Temperature	220°C
Mould Temperature	30 - 50°C
Injection Rate	50 - 150 mm/sec
Injection Pressure	60 - 120 Mpa
Packing Pressure	30 - 80 Mpa
Back Pressure	Medium (0,5 - 5 MPa)
Screw Revolving Speed	50 - 150 rpm
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.