PRODUCT INFORMATION

NILENE P10 K40T

Polypropylene homopolymer medium flow 40% talcum filled.

ISO short ISO 1043: PP-MD40
Form Pellets

Key Features

- Designed for injection moulding applications
- Highly mineral filled

Availability

- YT: laser printable
- S: heat stabilized
- AT: antistatic
- L: UV stabilized
- D: detergent stabilized
- All colours

Process

- INJECTION MOULDING

Application

- General purpose applications

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	600		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,24		
Filler content	ISO 3451	%	40	600°C - 1h	
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	4100	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	31	Speed 50 mm/min	

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Elongation at Break	ISO 527-1,2	%	25	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	27	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	4000	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	20	-20°C
IZOD Notched Impact	ASTM D256	J/m	30	+23°C
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	3,5	

THERMAL

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	155	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	95	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	85	
Ball Pressure Test	IEC 60695-10-2	°C	125	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	6X10exp(-5)	

FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	HB	UL approved
Glow Wire Flammability Index-GWFI (1,6 mm)	IEC 60695-2-12	°C	650	
Glow Wire Ignition Temperature-GWIT (1,6 mm)	IEC 60695-2-13	°C	550	
Oxigen index	ASTM D2863	%	21	

INJECTION MOULDING	Value
Drying Temperature (Desiccant Dryer)	70 - 80°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Regrind	< 10%
Melt Temperature	180 - 220°C
Feed Temperature	150°C
Rear Temperature	170°C
Middle Temperature	190°C
Front Temperature	200°C
Nozzle Temperature	210°C
Mould Temperature	30 - 70°C
Injection Rate	Medium to fast

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Injection Pressure	50 - 120 Mpa
Packing Pressure	30 - 100 Mpa
Back Pressure	0,5 - 3 Mpa
Screw Revolving Speed	< 300 mm/sec
Cushion	< 5 mm
Vent Depth	0,05 mm

Notes It is normally not necessary to dry NILENE compounds, however should there be surface moisture (condensate) on the moulding compound as a result of incorrect storage, drying process is required. NILENE must be stored indoors at a temperature below 40°C avoiding humidity and direct sunlight as well. NILENE 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 NILENE material the machine may be shut down.