



PRODUCT INFORMATION

NILENE P K20T

Polypropylene homopolymer 20% talcum filled flame rating UL94 HB.

ISO short ISO 1043: PP-MD20
Form Pellets
UL file E143048

Key Features

- Designed for injection moulding applications
- Mineral filled
- Good dimensional stability

Availability

- YT: laser printable
- S: heat stabilized
- MT: long-term service stability for contact with copper
- G: scratch resistant
- AT: antistatic
- D: detergent stabilized
- All colours

Compliance

- UL94 HB approved all colours at 1,6 mm. UL746 B approved.

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical

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	1,05		
Filler content	ISO 3451	%	20	550°C - 1h	
Water Absorption (24h / +23°C)	ISO 62	%	0,02	23°C	
Mould Shrinkage (Parallel)	Internal method	%	1,0 - 1,3		
Mould Shrinkage (Normal)	Internal method	%	1,0 - 1,3		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	15	230°C - 2,16 kg	
MECHANICAL					



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Tensile Modulus	ISO 527-1,2	MPa	2900	Speed 1 mm/min
Tensile Yield Strength	ISO 527-1,2	MPa	30	Speed 50 mm/min
Elongation at Break	ISO 527-1,2	%	16	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	2650	Speed 2 mm/min
IZOD Notched Impact (+23°C)	ASTM D256	J/m	35	

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	96	50°C/h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	75	120°C/h
Ball Pressure Test	IEC 60695-10-2	°C	125	

FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	HB	Yellow Card
Flame Behaviour (3,2 mm)	UL94	Class	HB	

INJECTION MOULDING

	Value
Drying Temperature (Circulating Air Oven)	70 - 90°C
Drying Temperature (Desiccant Dryer)	70 - 90°C
Drying Time (Circulating Air Oven)	3 - 5 hours
Drying Time (Desiccant Dryer)	0,5 - 2,5 hours
Suggested Max Moisture	0,2%
Suggested Max Re grind	< 5%
Melt Temperature	190- 210°C
Feed Temperature	50°C
Rear Temperature	170°C
Middle Temperature	180°C
Front Temperature	190°C
Nozzle Temperature	200°C
Mould Temperature	40 - 60°C
Injection Rate	50 - 150 mm/sec
Cushion	3- 6 mm



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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 / 105°F 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. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size or extruder, part geometry and design.
