



PRODUCT INFORMATION

NILENE E K20T

Polypropylene copolymer 20% talcum filled, flame rating UL94 HB.

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

Key Features

- Good impact - stiffness balance
- Good flowability
- Mineral filled

Availability

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

Compliance

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

Process

- INJECTION MOULDING

Application

- Electrical
- Consumer
- 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	1,05		
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		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	13	230°C - 2,16 kg	

MECHANICAL



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Tensile Yield Strength	ISO 527-1,2	MPa	30	Speed 50 mm/min
Elongation at Break	ISO 527-1,2	%	32	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	1900	Speed 1 mm/min
IZOD Notched Impact (+23°C)	ASTM D256	J/m	55	
IZOD Notched Impact (0°C)	ASTM D256	J/m	40	
IZOD Notched Impact (-25°C)	ASTM D256	J/m	25	
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m ²	5,2	

THERMAL

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	152	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	80	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	60	
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	130	
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	
Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	<100	Thickness 2 mm

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



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Nozzle Temperature	200°C
Mould Temperature	40 - 60°C
Injection Rate	50 - 150 mm/sec
Back Pressure	0,3 - 0,5 Mpa
Screw Revolving Speed	50 - 100 rpm
Cushion	3 - 6 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.