



PRODUCT INFORMATION

**NILENE E15 K20TE**

Polypropylene copolymer 20% mineral filled, medium high flow, designed for aesthetical applications.

**ISO short Form** ISO 1043: PP-MD20 Pellets

**Key Features**

- Good impact - stiffness balance
- High flow
- Mineral filled
- Good surface aspect

**Availability**

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

**Process**

- INJECTION MOULDING

**Application**

- Electrical
- Consumer
- Automotive

Property	Method	Unit	Value	Condition	State
<b>ELECTRICAL</b>					
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	>600		
<b>PHYSICAL</b>					
Density (+23°C)	ISO 1183	g/cm <sup>3</sup>	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	15	230°C - 2,16 kg	
<b>MECHANICAL</b>					
Tensile Yield Strength	ISO 527-1,2	MPa	27	Speed 50 mm/min	



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Elongation at Break	ISO 527-1,2	%	30	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	1700	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	50	+23°C
IZOD Notched Impact	ASTM D256	J/m	40	+0°C
IZOD Notched Impact	ASTM D256	J/m	30	-20°C
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m <sup>2</sup>	5	

**THERMAL**

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	150	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	78	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	55	
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	125	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K <sup>-1</sup>	6X10exp(-5)	

**FLAMMABILITY**

Flame Behaviour (1,6 mm)	UL94	Class	HB	
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
Nozzle Temperature	200°C



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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.