PRODUCT INFORMATION

NILENE E

Polypropylene copolymer high flow, flame rating UL94 HB.

ISO short	ISO 1043: PP
Form	Pellets
UL file	E143048

Key Features

- High flow

Availability

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

Compliance

- UL94 HB approved at 1,6 mm.

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	0,91		
Water Absorption at Saturation	ISO 62	%	0,02		
Mould Shrinkage (Parallel)	Internal method	%	1,4 - 1,8	23°C - 3,2 mm	
Mould Shrinkage (Normal)	Internal method	%	1,4 - 1,8	23°C - 3,2 mm	
Melt Flow Rate (MFR)	ISO 1133	g/10 min	35	230°C - 2,16 kg	
MECHANICAL					
Tensile Yield Strength	ISO 527-1,2	MPa	18	Speed 50 mm/min	
Elongation at Break	ISO 527-1,2	%	50	Speed 50 mm/min	
Flexural Modulus	ISO 178	MPa	850	Speed 1 mm/min	

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IZOD Notched Impact	ISO 180/1A	kJ/m^2	40	
IZOD Notched Impact (+23°C)	ASTM D256	J/m	400	

THERMAL

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	140	
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	70	

FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	HB	UL approved

INJECTION MOULDING	Value
Drying Temperature (Desiccant Dryer)	80 - 90°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	0,2%
Suggested Max Regrind	< 10%
Melt Temperature	190 - 220°C
Feed Temperature	160°C
Rear Temperature	180°C
Middle Temperature	190°C
Front Temperature	200°C
Nozzle Temperature	210°C
Mould Temperature	30 - 50°C
Injection Rate	50 - 150 mm/sec
Injection Pressure	60 - 120 Mpa
Packing Pressure	30 - 80 Mpa
Back Pressure	As low as possible (<0,5 MPa)
Screw Revolving Speed	30 - 80 rpm
Cushion	5 - 8 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.