PRODUCT INFORMATION

NILENE P K30VA V0

Polypropylene homopolymer 30% glass fibres reinforced chemically coupled, flame retardant UL94 V0, good mechanical properties.

ISO short	ISO 1043: PP-GF30 FR(17)
Form	Pellets
UL file	E143048

Key Features

- Designed for injection moulding applications
- Improved heat resistance
- Glass fibres reinforced
- Flame retardant
- Medium low flow
- Good dimensional stability

Availability

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

Compliance

- UL94 V0 all colours approved at 1,6 mm.

Process

- INJECTION MOULDING

Application

- General purpose applications
- Electronic
- Electrical
- Building
- Automotive

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	1,40		
Water Absorption at Saturation	ISO 62	%	0,05		
Mould Shrinkage (Parallel)	Internal method	%	0,2 - 0,5		
Mould Shrinkage (Normal)	Internal method	%	0,4 - 0,6		
Melting temperature (DSC)	ISO 11357	°C	165		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	5	230°C - 2,16 kg	

PRODUCT INFORMATION

NILENE P K30VA V0

MECHANICAL

Elongation at Break	ISO 527-1,2	%	3	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	70	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	6500	Speed 1 mm/min
Flexural Break Strength	ISO 178	MPa	80	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	65	+23°C

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	130	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	140	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	125	

FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	V0	UL approved
Flame Behaviour (3,2 mm)	UL94	Class	V0	UL approved
Glow Wire Flammability Index-GWFI (1,6 mm)	IEC 60695-2-12	°C	960	
Glow Wire Ignition Temperature-GWIT (1,6 mm)	IEC 60695-2-13	°C	775	
Needle flame test (1,6 mm)	IEC 60695-11-5	-	PASSED	

INJECTION MOULDING	Value
Drying Temperature (Desiccant Dryer)	80 - 100°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	0,2%
Suggested Max Regrind	< 10%
Melt Temperature	220 - 250°C
Feed Temperature	50°C
Rear Temperature	200°C
Middle Temperature	220°C
Front Temperature	230°C
Nozzle Temperature	240°C
Mould Temperature	40 - 80°C
Injection Rate	50 - 150 mm/sec

PRODUCT INFORMATION

NILENE P K30VA V0

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. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry and design.