PRODUCT INFORMATION

NILENE P3 K10VA

Polypropylene homopolymer 10% glass fibres reinforced chemically coupled, low flow, good mechanical properties.

ISO short ISO 1043: PP-GF10
Form Pellets

Key Features

- Designed for injection moulding applications
- Glass fibres reinforced
- Low flow

Availability

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

Process

- INJECTION MOULDING

Application

- General purpose applications

Property	Method	Unit	Value	Condition	State
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,00		
Filler content	ISO 3451	%	10	600°C - 1h	
Water Absorption (24h / +23°C)	ISO 62	%	0,1		
Mould Shrinkage (Parallel)	Internal method	%	0,5-0,8		
Mould Shrinkage (Normal)	Internal method	%	0,9-1,1		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	3	230°C - 2,16 kg	
MECHANICAL					
Elongation at Break	ISO 527-1,2	%	15	Speed 50 mm/min	
Tensile Break Strength	ISO 527-1,2	MPa	40	Speed 50 mm/min	
Flexural Modulus	ISO 178	MPa	3500	Speed 1 mm/min	
IZOD Notched Impact	ASTM D256	J/m	55	+23°C	
THERMAL					

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Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	155
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	115
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	115

FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	HB
Flame Behaviour (3,2 mm)	UL94	Class	HB
Oxigen index	ASTM D2863	%	21

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 - 60°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.