PRODUCT INFORMATION

NILENE E6 K20VA V2

Polypropylene copolymer medium flow 20% glass fibres reinforced chemically coupled, flame retardant UL94 V2, good mechanical properties.

ISO short ISO 1043: PP-GF20 FR(17)
Form Pellets

Key Features

- Glass fibres reinforced
- Flame retardant

Availability

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

Process

- INJECTION MOULDING

Application

- Power tools
- Household
- Electronic
- Electrical

Property	Method	Unit	Value	Condition	State
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,10		
Filler content	ISO 3451	%	20	600°C - 1 h	
Mould Shrinkage (Parallel)	Internal method	%	0,4- 0,6		
Mould Shrinkage (Normal)	Internal method	%	0,55 - 0,75		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	6	230°C - 2,16 kg	
MECHANICAL					
Elongation at Break	ISO 527-1,2	%	6	Speed 50 mm/min	
Tensile Break Strength	ISO 527-1,2	MPa	45	Speed 50 mm/min	
Flexural Modulus	ISO 178	MPa	3500	Speed 1 mm/min	

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IZOD Notched Impact	ASTM D256	J/m	60	+23°C

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	105
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	115

FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	V2
Glow Wire Flammability Index-GWFI (1 mm)	IEC 60695-2-12	°C	850

INJECTION MOULDING	Value
Drying Temperature (Desiccant Dryer)	70 - 80°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	0,2%
Suggested Max Regrind	< 10%
Melt Temperature	180 - 220°C
Feed Temperature	150°C
Rear Temperature	170°C
Middle Temperature	190°C
Front Temperature	200°C
Nozzle Temperature	210°C
Mould Temperature	30 - 70°C
Injection Rate	Slow to Medium
Injection Pressure	80 - 120 Mpa
Packing Pressure	60 - 100 Mpa
Back Pressure	5 - 10 Mpa
Screw Revolving Speed	< 300 mm/sec
Cushion	< 5 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.