*PRODUCT INFORMATION*

# NILENE E12

Polypropylene copolymer medium high flow.

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

## Key Features

- High flow

## Availability

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

## 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 | 12 | 230°C - 2,16 kg | |
| **MECHANICAL** | | | | | |
| Tensile Yield Strength | ISO 527-1,2 | MPa | 22 | Speed 50 mm/min | |
| Elongation at Break | ISO 527-1,2 | % | 60 | Speed 50 mm/min | |
| Flexural Modulus | ISO 178 | MPa | 1100 | Speed 1 mm/min | |
| IZOD Notched Impact | ASTM D256 | J/m | 100 | +23°C | |

*PRODUCT INFORMATION*

# NILENE E12

## THERMAL

| | | | | |
|---|---|---|---|---|
| Softening Temperature - 5 kg (VST/B/50) | ISO 306 | °C | 75 | 50°C/h |
| Deflection Temperature 1,80 MPa (HDT A) | ISO 75A | °C | 55 | |
| Deflection Temperature 0,45 MPa (HDT B) | ISO 75B | °C | 115 | |

## 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.