*PRODUCT INFORMATION*

# NILSAN S MR K17V

ABS 17% glass fibres reinforced, good dimensional stability, low shrinkage, good mechanical properties.

**ISO short** ISO 1043: ABS-GF15
**Form** Pellets

## Key Features

- Improved thermal resistance
- Designed for injection moulding applications

## Availability

- L: UV stabilized
- All colours

## Process

- INJECTION MOULDING

## Application

- General purpose applications
- Electronic

| Property | Method | Unit | Value | Condition | State |
|---|---|---|---|---|---|
| **ELECTRICAL** | | | | | |
| Volume Resistivity | IEC 60093 | Ohm cm | 10exp(15) | | |
| **PHYSICAL** | | | | | |
| Density (+23°C) | ISO 1183 | g/cm^3 | 1,17 | | |
| Filler content | ISO 3451 | % | 17 | 750°C - 1 h | |
| Water Absorption (24h / +23°C) | ISO 62 | % | 0,10 | | |
| Water Absorption at Saturation | ISO 62 | % | 0,2 | | |
| Mould Shrinkage (Parallel) | Internal method | % | 0,1-0,3 | | |
| Mould Shrinkage (Normal) | Internal method | % | 0,3-0,8 | | |
| Melt Flow Rate (MFR) | ISO 1133 | g/10 min | 10 | 220°C - 10 kg | |
| **MECHANICAL** | | | | | |
| Tensile Modulus | ISO 527-1,2 | MPa | 5600 | Speed 1 mm/min | |
| Elongation at Break | ISO 527-1,2 | % | 2 | Speed 50 mm/min | |
| Tensile Break Strength | ISO 527-1,2 | MPa | 78 | Speed 50 mm/min | |
| Flexural Modulus | ISO 178 | MPa | 5200 | Speed 1 mm/min | |

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

## THERMAL

| | | | | |
|---|---|---|---|---|
| Softening Temperature - 1 kg (VST/A/50) | ISO 306 | °C | 108 | 50°C / h |
| Softening Temperature - 5 kg (VST/B/50) | ISO 306 | °C | 104 | 50°C / h |
| Deflection Temperature 1,80 MPa (HDT A) | ISO 75A | °C | 96 | Unannealed, 120°C / h |
| Ball Pressure Test | IEC 60695-10-2 | °C | 100 | |
| Continuous service temperature (20.000 h) | UL746 B | °C | 75 | |
| Coefficient of linear thermal expansion (parallel) | ISO 11359-1,-2 | K^-1 | 4,5x10exp(-5) | -30°C /+30°C |

## FLAMMABILITY

| | | | | |
|---|---|---|---|---|
| Glow Wire Test-GWT | IEC 60695-2-11 | °C | 550 | |

| INJECTION MOULDING | Value |
|---|---|
| Drying Temperature (Circulating Air Oven) | 70 - 80°C |
| Drying Temperature (Desiccant Dryer) | 70 - 80°C |
| Drying Time (Circulating Air Oven) | 2 - 4 h |
| Drying Time (Desiccant Dryer) | 1 - 2 h |
| Suggested Max Regrind | < 15% |
| Melt Temperature | 220 - 250°C |
| Feed Temperature | 180°C |
| Rear Temperature | 210°C |
| Middle Temperature | 220°C |
| Front Temperature | 230°C |
| Nozzle Temperature | 240°C |
| Mould Temperature | 50 - 80°C |
| Injection Rate | Medium to fast |
| Back Pressure | 0,2 - 0,5 Mpa |
| Screw Revolving Speed | As low as possible |
| Cushion | 3 - 6 mm |
| Screw Compression Ratio | 2:1 - 3:1 |

**Notes** During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C.