TECHNYL STAR®
High-flow PA6 & PA 6.6

DOMO
caring is our formula

EXPERIMENTAL DATASHEET

# TECHNYL STAR S 216L1 V30 GY 2319N

TECHNYL STAR S 216L1 V30 GY 2319N is based on a patented high flow polyamide 6 resin (TechnylStar), reinforced with 30% of glass fibre, UV stabilized, for injection moulding. Due to its outstanding flow caracteristics, this grade provides a significant productivity improvement and allows more freedom in mould and part design versus a standard polyamide solutions.

## General

| | | |
|---|---|---|
| Feature | UV-stabilized | high flow |
| Polymer type | PA6 (Polyamide 6) | |
| Processing technology | Injection molding | |
| Certification | RoHS | EC 1907/2006 (REACH) |
| Applications | Automotive Applications<br>Outdoor Applications | Handles |
| Colors available | Grey | |
| Forms | Pellets | |

## Product identification

| | |
|---|---|
| ISO 1043 abbreviation | PA6-GF30 |

| | Condition | Standard | Unit | Value |
|---|---|---|---|---|
| **Physical properties** | | | | |
| Density | | ISO 1183 | g/cm³ | 1.34 |
| Water absorption | 24 hr, 23°C | ISO 62 | % | 0.9 - 1.1 |
| **Mechanical properties** | | | | **dam / cond.*** |
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 10000 / 6200 |
| Stress at break | | ISO 527-1/-2 | MPa | 150 / 85 |
| Strain at break | | ISO 527-1/-2 | % | 2.2 / 4.5 |
| Flexural modulus, ISO 178 | 2 mm/min | ISO 178 | MPa | 8900 / 5300 |
| Flexural strength, ISO 178 | 2 mm/min | ISO 178 | MPa | 200 / 130 |
| Charpy impact strength, +23°C | +23°C | ISO 179/1eU | kJ/m² | 40 / 50 |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m² | 8 / 10 |
| Rockwell hardness | | ISO 2039/2 | ScaleR | 120 / 115 |

## Thermal properties

| | Condition | Standard | Unit | Value |
|---|---|---|---|---|
| Melting temperature, 10°C/min | | ISO 11357-1 | °C | 222 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa | ISO 75 | °C | 205 |

**: conditioned according to ISO 1110*

## Processing conditions

| | |
|---|---|
| Drying temperature/time | 80 °C |
| Suggested max moisture | 0.2 % |
| Rear temperature | 230 - 235 °C |
| Middle temperature | 235 - 240 °C |
| Front temperature | 240 - 245 °C |
| Recommended mould temperature | 60 - 90 °C |

## Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

## Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.

## Disclaimer