

TECHNICAL DATA SHEET

TECHNYL STAR S 216L2 V30 BK

TECHNYL STAR S 216L2 V30 Black is based on a patented high flow polyamide 6 resin (TechnylStar), UV stabilized, reinforced with 30% of glass fibre, for injection moulding. Due to its outstanding flow characteristics, this grade provides a significant productivity improvement and allows more freedom in mould and part design versus a standard polyamide solutions.

General

| | | |
|-----------------------|---|--------------------------|
| Feature | Very high flow | Excellent surface finish |
| Polymer type | PA6 (Polyamide 6) | |
| Processing technology | Injection molding | |
| Certification | RoHS | EC 1907/2006 (REACH) |
| Applications | Automotive Applications Outdoor Applications | Handles |
| Colors available | Black | |
| Forms | Pellets | |

Product identification

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|-----------------------|----------|
| ISO 1043 abbreviation | PA6-GF30 |
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|-----------|----------|------|-------|
| Condition | Standard | Unit | Value |
|-----------|----------|------|-------|

Physical properties

| | | | | |
|-----------------------------|--|-----------------|---|-----|
| Molding shrinkage, parallel | | ISO 294-4, 2577 | % | 0.2 |
| Molding shrinkage, normal | | ISO 294-4, 2577 | % | 0.9 |

Mechanical properties

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|---------------------------------------|----------|--------------|-------|-----------|
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 10400 / - |
| Stress at break | | ISO 527-1/-2 | MPa | 160 / - |
| Strain at break | | ISO 527-1/-2 | % | 2.1 / - |
| Charpy impact strength, +23°C | +23°C | ISO 179/1eU | kJ/m² | 45 / - |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m² | 8.1 / - |

Thermal properties

| | | | | |
|-------------------------------|--|-------------|----|-----|
| Melting temperature, 10°C/min | | ISO 11357-1 | °C | 222 |
|-------------------------------|--|-------------|----|-----|

*: conditioned according to ISO 1110

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Processing conditions

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|-------------------------------|--------------|
| 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

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