

## TECHNYL® B 218 V30 BK 21N

DOMO Engineering Plastics - Polyamide 66/6 Copolymer

### General Information

#### Product Description

TECHNYL B 218 V30 BK 21N is a polyamide 66/6, reinforced with 30% of glass fibre, heat stabilized, for injection moulding. This grade offers an excellent combination between impact resistance, rigidity, thermal resistance and surface appearance. This grade is commonly used in the automotive industry; especially for the production of unpainted external parts due to its excellent surface finish.

#### General

|                             |                                                      |                             |                                                     |
|-----------------------------|------------------------------------------------------|-----------------------------|-----------------------------------------------------|
| Material Status             | • Commercial: Active                                 |                             |                                                     |
| Availability                | • Africa & Middle East<br>• Asia Pacific             | • Europe<br>• Latin America | • North America                                     |
| Filler / Reinforcement      | • Glass Fiber, 30% Filler by Weight                  |                             |                                                     |
| Additive                    | • Heat Stabilizer                                    |                             |                                                     |
| Features                    | • Good Surface Finish                                | • Heat Aging Resistant      | • Heat Stabilized                                   |
| Uses                        | • Automotive Applications<br>• Consumer Applications | • Fittings<br>• Handles     | • Industrial Applications<br>• Outdoor Applications |
| Agency Ratings              | • EC 1907/2006 (REACH) • UL 94                       |                             |                                                     |
| RoHS Compliance             | • RoHS Compliant                                     |                             |                                                     |
| Automotive Specifications   | • IMDS ID 8070307/2                                  |                             |                                                     |
| Processing Method           | • Injection Molding                                  |                             |                                                     |
| ISO Designation (ISO 16396) | • PA66/6,GF30,MH,S14-100                             |                             |                                                     |
| Resin ID (ISO 1043)         | • PA66/6-GF30                                        |                             |                                                     |

### Properties <sup>1</sup>

| Physical                                                | Dry     | Conditioned | Unit                  | Test Method   |
|---------------------------------------------------------|---------|-------------|-----------------------|---------------|
| Density                                                 | 1.37    | --          | g/cm <sup>3</sup>     | ISO 1183      |
| Molding Shrinkage                                       |         |             |                       | ISO 294-4     |
| Across Flow                                             | 1.0     | --          | %                     |               |
| Flow                                                    | 0.30    | --          | %                     |               |
| Water Absorption (24 hr, 73°F)                          | 1.2     | --          | %                     | ISO 62        |
| Water Absorption (Saturation, 73°F)                     | 6.0     | --          | %                     | ISO 62        |
| Mechanical                                              | Dry     | Conditioned | Unit                  | Test Method   |
| Tensile Modulus                                         | 1.42E+6 | 725000      | psi                   | ISO 527-1     |
| Tensile Stress (Break)                                  | 25400   | 14500       | psi                   | ISO 527-2     |
| Tensile Strain (Break)                                  | 3.3     | 9.0         | %                     | ISO 527-2     |
| Flexural Modulus                                        | 1.28E+6 | 725000      | psi                   | ISO 178       |
| Flexural Stress                                         | 37700   | 23200       | psi                   | ISO 178       |
| Impact                                                  | Dry     | Conditioned | Unit                  | Test Method   |
| Charpy Notched Impact Strength (73°F)                   | 4.8     | 7.6         | ft·lb/in <sup>2</sup> | ISO 179/1eA   |
| Charpy Unnotched Impact Strength (73°F)                 | 33      | 43          | ft·lb/in <sup>2</sup> | ISO 179/1eU   |
| Notched Izod Impact Strength (73°F)                     | 5.2     | 9.0         | ft·lb/in <sup>2</sup> | ISO 180/1A    |
| Thermal                                                 | Dry     | Conditioned | Unit                  | Test Method   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 446     | --          | °F                    | ISO 75-2/A    |
| Melting Temperature <sup>2</sup>                        | 468     | --          | °F                    | ISO 11357-3   |
| Electrical                                              | Dry     | Conditioned | Unit                  | Test Method   |
| Surface Resistivity                                     | 6.0E+15 | --          | ohms                  | IEC 62631-3-2 |
| Volume Resistivity                                      | 1.0E+13 | --          | ohms·m                | IEC 62631-3-1 |
| Electric Strength                                       | 860     | --          | V/mil                 | IEC 60243-1   |
| Flammability                                            | Dry     | Conditioned | Unit                  | Test Method   |
| Burning Rate (0.0394 in)                                | < 3.9   |             | in/min                | FMVSS 302     |



|              |    |    |   |
|--------------|----|----|---|
| Oxygen Index | 23 | -- | % |
|--------------|----|----|---|

Processing Information

| Injection              | Dry Unit      |
|------------------------|---------------|
| Drying Temperature     | 176 °F        |
| Suggested Max Moisture | 0.20 %        |
| Rear Temperature       | 491 to 509 °F |
| Middle Temperature     | 500 to 518 °F |
| Front Temperature      | 518 to 536 °F |
| Mold Temperature       | 158 to 212 °F |

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.

Notes

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 10°C/min

