

## TECHNYL® A 246M BK 21N

DOMO Engineering Plastics - Polyamide 66

### General Information

#### Product Description

TECHNYL A 246M BK 21N is an unfilled polyamide 6.6, impact modified, for injection moulding. This grade offers an excellent impact resistance, even at low temperature.

#### General

|                     |                                                                    |                                                                                  |                                         |
|---------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------|
| Material Status     | • Commercial: Active                                               |                                                                                  |                                         |
| Availability        | • Africa & Middle East<br>• Asia Pacific                           | • Europe<br>• Latin America                                                      | • North America                         |
| Features            | • High Impact Resistance                                           | • Low Temperature Impact Resistance                                              |                                         |
| Uses                | • Automotive Applications<br>• Consumer Applications<br>• Footwear | • Industrial Applications<br>• Lawn & Garden Equipment<br>• Outdoor Applications | • Power/Other Tools<br>• Sporting Goods |
| Agency Ratings      | • EC 1907/2006 (REACH)                                             | • UL 94                                                                          |                                         |
| RoHS Compliance     | • RoHS Compliant                                                   |                                                                                  |                                         |
| Processing Method   | • Injection Molding                                                |                                                                                  |                                         |
| Resin ID (ISO 1043) | • PA66                                                             |                                                                                  |                                         |

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

| Physical                                                | Dry     | Conditioned | Unit                  | Test Method   |
|---------------------------------------------------------|---------|-------------|-----------------------|---------------|
| Density                                                 | 1.08    | --          | g/cm <sup>3</sup>     | ISO 1183      |
| Molding Shrinkage                                       |         |             |                       | ISO 294-4     |
| Across Flow                                             | 1.3     | --          | %                     |               |
| Flow                                                    | 1.6     | --          | %                     |               |
| Water Absorption (24 hr, 73°F)                          | 1.1     | --          | %                     | ISO 62        |
| Mechanical                                              | Dry     | Conditioned | Unit                  | Test Method   |
| Tensile Modulus                                         | 276000  | 87000       | psi                   | ISO 527-1     |
| Tensile Stress (Break)                                  | 6380    | 5080        | psi                   | ISO 527-2     |
| Flexural Modulus                                        | 261000  | --          | psi                   | ASTM D790     |
| Flexural Modulus                                        | 261000  | 102000      | psi                   | ISO 178       |
| Flexural Strength                                       | 10200   | --          | psi                   | ASTM D790     |
| Flexural Stress                                         | 10200   | 3920        | psi                   | ISO 178       |
| Impact                                                  | Dry     | Conditioned | Unit                  | Test Method   |
| Charpy Notched Impact Strength (73°F)                   | 46      | 48          | ft·lb/in <sup>2</sup> | ISO 179/1eA   |
| Notched Izod Impact Strength                            |         |             |                       | ISO 180/1A    |
| -22°F                                                   | 10      | --          | ft·lb/in <sup>2</sup> |               |
| 73°F                                                    | 29      | 38          | ft·lb/in <sup>2</sup> |               |
| Thermal                                                 | Dry     | Conditioned | Unit                  | Test Method   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 149     | --          | °F                    | ISO 75-2/A    |
| Melting Temperature <sup>2</sup>                        | 505     | --          | °F                    | ISO 11357-3   |
| Electrical                                              | Dry     | Conditioned | Unit                  | Test Method   |
| Surface Resistivity                                     | 1.0E+15 | --          | ohms                  | IEC 62631-3-2 |
| Volume Resistivity                                      | 1.0E+13 | --          | ohms·m                | IEC 62631-3-1 |
| Electric Strength                                       | 560     | --          | V/mil                 | IEC 60243-1   |
| Flammability                                            | Dry     | Conditioned | Unit                  | Test Method   |
| Burning Rate (0.0394 in)                                | < 3.9   | --          | in/min                | FMVSS 302     |
| Flame Rating (0.06 in)                                  | HB      | --          |                       | UL 94         |

### Processing Information

Injection

Dry Unit



|                        |               |
|------------------------|---------------|
| Drying Temperature     | 176 °F        |
| Suggested Max Moisture | 0.20 %        |
| Rear Temperature       | 509 to 527 °F |
| Middle Temperature     | 518 to 536 °F |
| Front Temperature      | 536 to 545 °F |
| Mold Temperature       | 140 to 176 °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

