

Terblend N NG-02

Acrylonitrile Butadiene Styrene / Polyamide (ABS/PA)

TECHNICAL DATASHEET

| Property, Test Condition | Standard | Unit | Values |
|---|------------|-------------------------|--------|
| Rheological Properties | | | |
| Melt Volume Rate, 240 °C/10 kg | ISO 1133 | cm ³ /10 min | 30 |
| Mechanical Properties | | | |
| Izod Notched Impact Strength, 23 °C | ISO 180/A | kJ/m ² | 6 |
| Izod Notched Impact Strength, -30 °C | ISO 180/A | kJ/m ² | 3 |
| Charpy Notched Impact Strength, 23° C | ISO 179 | kJ/m ² | 8 |
| Charpy Notched Impact Strength, -30° C | ISO 179 | kJ/m ² | 3 |
| Charpy Unnotched, 23° C | ISO 179 | kJ/m ² | 35 |
| Charpy Unnotched, -30° C | ISO 179 | kJ/m ² | 25 |
| Tensile Stress at Yield, 23° C | ISO 527 | MPa | 50 |
| Tensile Strain at Yield, 23° C | ISO 527 | % | 3 |
| Tensile Modulus | ISO 527 | MPa | 3200 |
| Elongation at Break (MD) | ISO 527 | % | 4 |
| Flexural Strength | ISO 178 | MPa | 80 |
| Flexural Modulus | ISO 178 | MPa | 2800 |
| Hardness, Ball Indentation | ISO 2039-1 | MPa | 95 |
| Thermal Properties | | | |
| Vicat Softening Temperature VST/B/50 (50N, 50°C/h) | ISO 306 | °C | 108 |
| Vicat Softening Temperature, VST/A/50 (10N, 50°C/h) | ISO 306 | °C | 170 |
| Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa) | ISO 75 | °C | 80 |
| Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa) | ISO 75 | °C | 105 |
| Coefficient of Linear Thermal Expansion | ISO 11359 | 10 ⁻⁶ /°C | 60 |
| Electrical Properties | | | |
| Dielectric Constant (100 Hz) | IEC 60250 | - | 3.4 |
| Dissipation Factor (1 MHz) | IEC 60250 | 10 ⁻⁴ | 130 |

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| Volume Resistivity | IEC 60093 | Ohm*m | 1E13 |
| Surface Resistivity | IEC 60093 | Ohm | 1E14 |
| Other Properties | | | |
| Density | ISO 1183 | kg/m ³ | 1120 |
| Filler Content (% Ash) | | % | GF8 |
| Processing | | | |
| Melt Temperature Range | ISO 294 | °C | 240 - 270 |

Typical values for uncolored products

SUPPLY FORM

Terblend® N is supplied as cylindrical or lenticular pellets. The bulk density is from about 0.55-0.65 g/cm³. Standard pack: 25 kg PE sack, palletized and film-secured. Subject to agreement, other means of packing are possible, e.g. 1000 kg bulk containers (octagonal IBCs, or intermediate bulk containers, made from corrugated board with sack insert) or shipping by road tanker can be arranged. Terblend® N pellets can be stored for prolonged periods in dry areas subject to normal temperature control without any changes in mechanical properties. However, with sensitive colors storage over some years can cause some color change. In poor storage conditions, Terblend® N absorbs moisture, which can be removed again by drying. Packs stored in cold areas should be brought to ambient temperature before opening to prevent condensation on the pellets.

PRODUCT SAFETY

Given appropriate processing of the products and suitable ventilation measures in production areas, no adverse effects on the health of process operator have been found. Workplace limits for styrene, acrylonitrile and 1,3-butadiene, as given in the applicable national listings, must be adhered to. The values currently applicable in Germany under TRGS 900 (issue of September, 1999) for maximum workplace concentrations are as follows. Styrene: 20 ml/m³ = 85 mg/m³; acrylonitrile: 3 ml/m³ = 7 mg/m³; 1,3-butadiene: 5 ml/m³ = 11 mg/m³. Appendix I of Directive 67/548/EWG (issue of 1999) classifies acrylonitrile and 1,3-butadiene in carcinogenic category II (substances which should be regarded as carcinogenic in humans). Experience has shown that during appropriate processing of Terblend® N with suitable ventilation the values obtained are well below the limits mentioned above. TRGS 402 (Germany) can be used for determining and assessing the concentrations of hazardous substances in the air within working areas. Inhalation of gaseous degradation products (e.g. caprolactam), such as those which may arise on severe overheating of the material or during pumped evacuation, must be avoided. Further information can be found in our Terblend® N safety data sheets.

DISCLAIMER

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