

Denka ABS TE-10S

Acrylonitrile Butadiene Styrene

DENKA



Prospector

General

| | |
|-------------------|--------------------------------|
| Material Status | • Commercial: Active |
| Availability | • Asia Pacific • North America |
| Appearance | • Clear/Transparent |
| Forms | • Pellets |
| Processing Method | • Sheet Extrusion |

Physical

| | Nominal Value Unit | Test Method |
|---------------------------|------------------------|------------------------|
| Specific Gravity | 1.09 g/cm ³ | ASTM D792 ISO 1183 |
| Melt Mass-Flow Rate (MFR) | | ASTM D1238 ISO 1133 |
| 200°C/5.0 kg | 1.7 g/10 min | |
| 220°C/10.0 kg | 25 g/10 min | |

Mechanical

| | Nominal Value Unit | Test Method |
|--------------------------------|--------------------|--------------|
| Tensile Stress | | |
| Yield | 42.0 MPa | ISO 527-2/50 |
| Break | 31.0 MPa | ISO 527-2/50 |
| -- ² | 37.0 MPa | ASTM D638 |
| Tensile Strain (Break) | 50 % | ISO 527-2/50 |
| Flexural Modulus ³ | | |
| -- | 2010 MPa | ASTM D790 |
| -- | 2000 MPa | ISO 178 |
| Flexural Strength ³ | | |
| -- | 64.0 MPa | ASTM D790 |
| -- | 63.0 MPa | ISO 178 |

Impact

| | Nominal Value Unit | Test Method |
|---------------------------------------|----------------------|-------------|
| Charpy Notched Impact Strength (23°C) | 15 kJ/m ² | ISO 179 |

Hardness

| | Nominal Value Unit | Test Method |
|-------------------|--------------------|-------------|
| Rockwell Hardness | | |
| M-Scale | 46 | ASTM D785 |
| M-Scale, 23°C | 46 | ISO 2039-2 |

Thermal

| | Nominal Value Unit | Test Method |
|-----------------------------------|--------------------|-------------------------|
| Deflection Temperature Under Load | | |
| 1.8 MPa, Unannealed | 78.0 °C | ASTM D648 |
| 1.8 MPa, Unannealed | 70.0 °C | ISO 75-2/A |
| Vicat Softening Temperature | | |
| -- | 88.0 °C | ASTM D1525 ⁴ |
| -- | 87.0 °C | ISO 306/B |

Flammability

| | Nominal Value Unit | Test Method |
|-------------------|--------------------|-------------|
| Flame Rating - UL | HB | UL 94 |
| UL File Number | E49895 | |

Optical

| | Nominal Value Unit | Test Method |
|-------------------------|--------------------|-------------|
| Transmittance (2000 µm) | 91.0 % | ASTM D1003 |
| Haze (2000 µm) | 1.5 % | ASTM D1003 |

Additional Information

Light Transmission, ISO 13468-1, 2mm: 91%
Haze, ISO 14782, 2mm: 1.9%
Notched Izod Impact, ASTM D256, 23°C: 171 kJ/m²

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² 50 mm/min
- ³ 2.0 mm/min
- ⁴ Loading 2 (50 N)

Revision History

Document Created: Wednesday, April 06, 2011
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