INEOS STYROLUTION

# Novodur P2M-AT

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

## DESCRIPTION

Novodur® acrylonitrile butadiene styrene (ABS) polymers feature high surface quality and good impact strength. Novodur® P2M-AT is a medium impact, high gloss injection molding grade with good flowability and contains an antistatic additive.

## FEATURES

- Impact strength
- High gloss

## APPLICATIONS

- Housings for electrical & electronic devices
- Electrical and electronic components, switches, house automation
- Industrial batteries
- Gardening tools
- Toys, sports & leisure

| Property, Test Condition | Standard | Unit | Values |
|---|---|---|---|
| **Rheological Properties** | | | |
| Melt Volume Rate 220 °C/10 kg | ISO 1133 | cm³/10 min | 20 |
| **Mechanical Properties** | | | |
| Charpy Notched Impact Strength, 23° C | ISO 179/1eA | kJ/m² | 22 |
| Charpy Notched Impact Strength, -30 °C | ISO 179/1eA | kJ/m² | 11 |
| Charpy Unnotched, 23 °C | ISO 179/1eU | kJ/m² | 180 |
| Charpy Unnotched, -30 °C | ISO 179/1eU | kJ/m² | 120 |
| Izod Notched Impact Strength, 23 °C | ISO 180/A | kJ/m² | 22 |
| Izod Notched Impact Strength, -30 °C | ISO 180/A | kJ/m² | 11 |
| Tensile Modulus | ISO 527 | MPa | 2300 |
| Tensile Stress at Yield, 23 °C | ISO 527 | MPa | 39 |
| Tensile Strain at Yield, 23 °C | ISO 527 | % | 2.1 |
| Tensile Stress at Break, 23 °C | ISO 527 | MPa | 30 |
| Tensile Strain at Break, 23 °C | ISO 527 | % | > 15 |
| Nominal Strain at Break, 23 °C | ISO 527 | % | 15 |
| Flexural Modulus, 23 °C | ISO 178 | MPa | 2100 |
| Flexural Strength, 23 °C | ISO 178 | MPa | 60 |

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| Property, Test Condition | Standard | Unit | Values |
|---|---|---|---|
| Hardness, Ball Indentation | ISO 2039-1 | MPa | 97 |
| **Thermal Properties** | | | |
| Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h) | ISO 306 | °C | 100 |
| Vicat Softening Temperature VST/B/50 (50N, 50 °C/h) | ISO 306 | °C | 98 |
| Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa) | ISO 75 | °C | 93 |
| Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa) | ISO 75 | °C | 97 |
| Coefficient of Linear Thermal Expansion | ISO 11359 | $10^{-6}$/°C | 100 |
| **Electrical Properties** | | | |
| Dielectric Strength, Short Time, 1.0 mm | IEC 60243-1 | kV/mm | 33 |
| Comparative Tracking Index | IEC 60112 | V | 600 |
| **Other Properties** | | | |
| Density | ISO 1183 | kg/m³ | 1040 |
| UL94 rating at 1.5 mm thickness | IEC 60695-11-10 | - | HB |
| **Processing** | | | |
| Linear Mold Shrinkage | ISO 294-4 | % | 0.4 - 0.7 |
| Melt Temperature Range | ISO 294 | °C | 230 - 260 |
| Mold Temperature Range | ISO 294 | °C | 60 - 80 |
| Drying Temperature | - | °C | 80 |
| Drying Time | - | h | 2 - 4 |