INEOS STYROLUTION

# K-Resin BK10

Styrene Butadiene Copolymer (SBC)

TECHNICAL DATASHEET

## DESCRIPTION

K-Resin® BK10 offers improved processability and lower cycle times with the optical clarity, impact toughness, and high gloss. K-Resin® BK10 is easily processed by injection molding and molded parts give excellent detail on fast production cycles. It can be tinted or colored in a variety of transparent and opaque shades.

## FEATURES

- Excellent Clarity
- Good Stiffness
- Good Toughness
- High Surface Gloss
- Higher melt flow

## APPLICATIONS

- Medical Devices
- Tools Part
- Toys
- Molded Containers and Bottles
- Displays

| Property, Test Condition | Standard | Unit | Values |
|---|---|---|---|
| **Rheological Properties** | | | |
| Melt Volume Rate, 200 °C/5 kg | ISO 1133 | cm³/10 min | 15 |
| **Mechanical Properties** | | | |
| Izod Notched Impact Strength, 23 °C | ISO 180/A | kJ/m² | 4 |
| Charpy Notched Impact Strength, 23° C | ISO 179/1eA | kJ/m² | 2 |
| Charpy Unnotched, 23 °C | ISO 179/1eU | kJ/m² | No Break |
| Tensile Stress at Yield, 23 °C | ISO 527 | MPa | 25 |
| Tensile Stress at Break, 23 °C | ISO 527 | MPa | 17 |
| Tensile Strain at Break, 23 °C | ISO 527 | % | 180 |
| Tensile Modulus | ISO 527 | MPa | 1500 |
| Flexural Strength, 23 °C | ISO 178 | MPa | 28 |
| Flexural Modulus, 23 °C | ISO 178 | MPa | 1300 |
| Hardness, Shore D | ISO 868 | - | 61 |
| **Thermal Properties** | | | |
| Vicat Softening Temperature VST/B/50 (50N, 50 °C/h) | ISO 306 | °C | 53 |

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| Property, Test Condition | Standard | Unit | Values |
|---|---|---|---|
| Vicat Softening Temperature, VST/A/120 (10N, 120 °C/h) | ISO 306 | °C | 85 |
| Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa) | ISO 75 | °C | 61 |
| Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa) | ISO 75 | °C | 76 |
| **Optical Properties** | | | |
| Refractive Index, Sodium D Line | ISO 489 | - | 1.57 |
| Haze | ASTM D 1003 | % | < 1.5 |
| Light Transmission at 550 nm | ASTM D 1003 | % | 91 |
| **Other Properties** | | | |
| Density | ISO 1183 | kg/m³ | 1010 |
| Moisture Absorption, Equilibrium 23 °C/50% RH | ISO 62 | % | 0.07 |
| **Processing** | | | |
| Linear Mold Shrinkage | ISO 294-4 | % | 0.3 - 1 |
| Melt Temperature Range | ISO 294 | °C | 180 - 240 |
| Mold Temperature Range | ISO 294 | °C | 30 - 50 |