# Styrolution PS 165N/L

General Purpose Polystyrene

INEOS Styrolution Group GmbH

## Message:

Styrolution PS 165N/L is a high molecular weight, good flowing grade, often blended with high impact extrusion grades.

| General Information | |
|---|---|
| UL YellowCard | E108538-100729306 |
| Features | General Purpose<br>Good Flow<br>High Molecular Weight |
| Uses | Appliance Components<br>Blending<br>Cups<br>Media Packaging |
| Forms | Pellets |
| Processing Method | Extrusion<br>Injection Molding |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.04 | g/cm³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (200°C/5.0 kg) | 3.40 | cm³/10min | ISO 1133 |
| Molding Shrinkage | 0.30 to 0.60 | % | ISO 294-4 |
| Water Absorption | | | ISO 62 |
| Saturation, 23°C | < 0.10 | % | |
| Equilibrium, 23°C, 50% RH | < 0.10 | % | |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Ball Indentation Hardness | 150 | MPa | ISO 2039-1 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 3300 | MPa | ISO 527-2 |
| Tensile Stress (Yield, 23°C) | 52.0 | MPa | ISO 527-2 |
| Tensile Strain (Break, 23°C) | 2.0 | % | ISO 527-2 |
| Tensile Creep Modulus | | | ISO 899-1 |
| 1 hr | 3300 | MPa | |
| 1000 hr | 2600 | MPa | |
| Flexural Stress | 86.0 | MPa | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |

| | | | |
|---|---|---|---|
| Charpy Unnotched Impact Strength (23°C) | < 25 | kJ/m² | ISO 179 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Heat Deflection Temperature | | | |
| 0.45 MPa, Annealed | 84.0 | °C | ISO 75-2/B |
| 1.8 MPa, Annealed | 76.0 | °C | ISO 75-2/A |
| Vicat Softening Temperature | | | |
| -- | 97.0 | °C | ASTM D1525 [1] |
| -- | 89.0 | °C | ASTM D1525 [2] |
| CLTE - Flow | 8.0E-5 | cm/cm/°C | ISO 11359-2 |
| Thermal Conductivity | 0.17 | W/m/K | DIN 52612 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | > 1.0E+14 | ohms | IEC 60093 |
| Volume Resistivity | > 1.0E+18 | ohms·cm | IEC 60093 |
| Dielectric Constant (100 Hz) | 2.50 | | IEC 60250 |
| Dissipation Factor | | | IEC 60250 |
| 100 Hz | 9.0E-5 | | |
| 1 MHz | 7.0E-5 | | |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating [3] | HB | | UL 94 |
| **Injection** | **Nominal Value** | **Unit** | |
| Processing (Melt) Temp | 180 to 280 | °C | |
| Mold Temperature | 40.0 | °C | |
| Injection Velocity | 200 | mm/sec | |
| **NOTE** | | | |
| 1. | Rate B (120°C/h), Loading 1 (10 N) | | |
| 2. | Rate B (120°C/h), Loading 2 (50 N) | | |
| 3. | Antwerp Only | | |



## Recommended distributors for this material

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