



versalis

info.styrenics@versalis.eni.com

Technical Data Sheet

EDISTIR®

N 1910

Polystyrene

Very easy flow general purpose polystyrene.

Used for injection of thin-wall, multi-cavity, very fast-cycle mouldings and for sheet extrusion in glossy capping of HIPS and in blend with HIPS or clear SBS.

Designation: Thermoplastics ISO 1622-PS,G,085-20

Applications

Typical uses include cups, packaging containers for foods and cosmetics, toys, medical articles.

Thanks to its high flow it is particularly suitable as carrier for master batches.

Typical processing data

- Injection moulding:
- predrying normally not required
 - melt temperature 200-250°C
- Extrusion:
- mould temperature 10-50°C
 - melt temperature 210-240°C

General information

N 1910 is certified UL94 HB "all colors" at 1.5 mm (UL file E83071).

This grade in its natural version complies by composition with the requirements set by the main Regulations for plastic materials intended for food contact (including Commission Regulation (EU) No 10/2011 and subsequent amendments).

| Properties | Test conditions | Test methods | Units | Values |
|--|--------------------------|-----------------|-------------------------|-----------|
| General | | | | |
| Density | | ISO 1183 | g/cm ³ | 1.05 |
| Bulk density | | ISO 60 | g/cm ³ | 0.65 |
| Water absorption | 24 h - 23°C | ISO 62 | % | <0.1 |
| Rheological | | | | |
| Melt flow rate | 200°C - 5 kg | ISO 1133 | g/10 min | 27 |
| Mechanical | | | | |
| Tensile stress at yield | 5 mm/min | ISO 527 | MPa | - |
| Tensile stress at break | 5 mm/min | ISO 527 | MPa | 37 |
| Tensile strain at break | 5 mm/min | ISO 527 | % | 1.3 |
| Tensile modulus | 1 mm/min | ISO 527 | MPa | 3200 |
| Flexural strength | 2 mm/min | ISO 178 | MPa | 67 |
| Izod impact strength, notched | +23°C - thickness 3.2 mm | ISO 180/4A | J/m | - |
| | +23°C - thickness 4 mm | ISO 180/1A | kJ/m ² | 1.7 |
| | -30°C - thickness 4 mm | ISO 180/1A | kJ/m ² | 1.5 |
| Rockwell hardness | L/M scale | ISO 2039/2 | - | M80 |
| Thermal | | | | |
| Vicat softening temperature | 10 N - 50°C/h | ISO 306/A | °C | 89 |
| | 50 N - 50°C/h | ISO 306/B | °C | 83 |
| Deflection temperature under load (annealed) | 1.8 MPa - 120°C/h | ASTM D 648 | °C | 82 |
| Coefficient of linear thermal expansion | | ASTM D 696 | 10 ⁻⁵ /°C | 7 |
| Thermal conductivity | | ISO 8302 | W/(K·m) | 0.17 |
| Moulding shrinkage | | internal method | % | 0.3 - 0.6 |
| Flammability | | | | |
| Flame behaviour | thickness 1.5 mm | UL 94 | class | HB |
| Glow wire test (GWT) | thickness 1.6 mm | IEC 60695-2-1 | °C | 650 |
| Electrical | | | | |
| Surface resistivity | | IEC 60093 | 10 ¹⁵ ohm | >1.5 |
| Volume resistivity | | IEC 60093 | 10 ¹⁵ ohm·cm | >7 |
| Comparative tracking index (CTI) | solution A | IEC 60112 | - | 375 |
| Dielectric strength | | IEC 60243 | kV/mm | 70 |
| Dielectric constant (relative permittivity) | 50 Hz | IEC 60250 | - | 2.5 |
| Dissipation factor | 50 Hz | IEC 60250 | - | 0.0002 |

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Please consult the relevant safety data sheet for more detailed information.

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