



Physical properties of TPX® DX845

Highly recommended for film extrusion, possible use for injection moulding, fibre extrusion and blow moulding

| Physical Properties | Item | Test Condition | Unit | Test Method | Value | |
|------------------------------|-----------------------------------|------------------|----------------------------------|------------------------|-----------------------|----|
| Basic Properties | Density | | kg/m ³ | ASTM-D1505 | 833 | |
| | MFR | P=5kg, 260°C | g/10 min | ASTM-D1238 | 9 | |
| | Melting Point | Peak Temp. | °C | JIS-K7121 (DSC method) | 233 | |
| | Water Absorption | | % | ASTM-D570 | <0.01 | |
| Thermal Properties | Vicat Softening Point | | °C | ASTM-D1525 | 174 | |
| | Heat Distortion Temperature (HDT) | 0.43 MPa | °C | ASTM-D648 | 127 | |
| | Expansion Coefficient | | 10 ⁻⁶ K ⁻¹ | ASTM-E831 | 1.17x10 ⁻⁴ | |
| Mechanical Properties @ 23°C | Yield Stress | | MPa | ASTM-D638 | 30 | |
| | Tensile Strength | | MPa | ASTM-D638 | 25 | |
| | Elongation at Break | | % | ASTM-D638 | 12 | |
| | Tensile Modulus | | MPa | ASTM-D638 | 1900 | |
| | Flexural Modulus | | MPa | ASTM-D790 | 1600 | |
| | Flexural Strength | | MPa | ASTM-D790 | 47 | |
| | Izod Impact Strength | With Notch | | J/m | ASTM-D256 | 20 |
| | | Without Notch | | KJ/m ² | ASTM-D256 | 10 |
| Rockwell Hardness | R Scale | | - | ASTM-D785 | 87 | |
| Optical Properties | Haze | | % | ASTM-D1003 | 1.1 | |
| | Transmittance | | % | ASTM-D1003 | 94 | |
| | Refractive Index | | - | ASTM-D542 | 1.46 | |
| Electrical Properties | Volume Resistivity | | Ω . cm | ASTM-D257 | >10 ¹⁶ | |
| | Dielectric Breakdown Voltage | | kV/mm | ASTM-D149 | 65 | |
| | Dielectric Constant | | - | ASTM-D150 | 2.1 | |
| Moulding Properties | Spiral flow | Mould temp. 73°C | cm | MCI method 1 | 50 | |
| | Mould shrinkage | Longitudinal | % | MCI method 2 | 1.5 | |
| | | Transverse | % | MCI method 2 | 1.2 | |

Notes:

MCI method 1 moulding temp: 310~330°C (depending on the grade)
MCI method 2 moulding temp: 260~280°C (depending on the grade)

All information and technical data are given as a guide only. Although every effort has been made to ensure that the information is correct, no warranty is given as to its completeness or accuracy.

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