

HOSTAFORM® MT®2U01

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Hostaform® acetal copolymer grade MT®2U01 is a special grade developed for medical industry applications containing low residual monomers and no animal products. Hostaform® MT®2U01 is a low melt flow injection molding and extrusion grade designed for good processing along with optimum properties including improved toughness in demanding applications.

Product information

| | | |
|----------------------|-------|-----------|
| Resin Identification | POM | ISO 1043 |
| Part Marking Code | >POM< | ISO 11469 |

Rheological properties

| | | |
|------------------------------|----------------------------|-----------------|
| Melt volume-flow rate | 2.5 cm ³ /10min | ISO 1133 |
| Temperature | 190 °C | |
| Load | 2.16 kg | |
| Moulding shrinkage, parallel | 2.1 % | ISO 294-4, 2577 |
| Moulding shrinkage, normal | 1.8 % | ISO 294-4, 2577 |

Typical mechanical properties

| | | |
|--|--------------------------------------|--------------|
| Tensile modulus | 2600 MPa | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 62 MPa | ISO 527-1/-2 |
| Tensile strain at yield, 50mm/min | 9 % | ISO 527-1/-2 |
| Nominal strain at break | 32 % | ISO 527-1/-2 |
| Flexural modulus | 2500 MPa | ISO 178 |
| Tensile creep modulus, 1h | 2300 MPa | ISO 899-1 |
| Tensile creep modulus, 1000h | 1100 MPa | ISO 899-1 |
| Charpy impact strength, 23 °C | 250 ^[P] kJ/m ² | ISO 179/1eU |
| Charpy impact strength, -30 °C | 250 kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength, 23 °C | 8.5 kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength, -30 °C | 7 kJ/m ² | ISO 179/1eA |
| Poisson's ratio | 0.38 ^[C] | |

[P]: Partial Break

[C]: Calculated

Thermal properties

| | | |
|--|-----------|----------------|
| Melting temperature, 10 °C/min | 165 °C | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa | 101 °C | ISO 75-1/-2 |
| Coefficient of linear thermal expansion (CLTE), parallel | 110 E-6/K | ISO 11359-1/-2 |

Physical/Other properties

| | | |
|--------------------------|------------------------|----------------|
| Humidity absorption, 2mm | 0.2 % | Sim. to ISO 62 |
| Water absorption, 2mm | 0.65 % | Sim. to ISO 62 |
| Density | 1410 kg/m ³ | ISO 1183 |

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Injection

| | |
|---------------------------------|--------------|
| Drying Recommended | no |
| Drying Temperature | 100 °C |
| Drying Time, Dehumidified Dryer | 3 - 4 h |
| Processing Moisture Content | ≤0.2 % |
| Melt Temperature Optimum | 190 °C |
| Min. melt temperature | 180 °C |
| Max. melt temperature | 200 °C |
| Screw tangential speed | ≤0.3 m/s |
| Mold Temperature Optimum | 100 °C |
| Min. mould temperature | 80 °C |
| Max. mould temperature | 120 °C |
| Hold pressure range | 60 - 120 MPa |
| Back pressure | 4 MPa |

Characteristics

| | |
|---------------|--|
| Processing | Injection Moulding, Extrusion, Sheet Extrusion |
| Delivery form | Pellets |
| Additives | Release agent |

Additional information

Processing Notes

Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling, drying may be necessary to prevent splay and odor problems.