

HOSTAFORM® MT8U01 | POM | Medical Technology

Description

Hostaform® acetal copolymer grade MT8U01 is a special grade developed for medical industry applications containing low residual monomers and no animal products. Hostaform® MT8U01 is an injection molding grade with a molecular weight for excellent moldability and optimum properties in demanding applications.

| Physical properties | Value | Unit | Test Standard |
|-----------------------------|-------------|------------------------|---------------|
| Density | 1410 | kg/m ³ | ISO 1183 |
| Melt volume rate (MVR) | 8 | cm ³ /10min | ISO 1133 |
| MVR test temperature | 190 | °C | ISO 1133 |
| MVR test load | 2.16 | kg | ISO 1133 |
| Mold shrinkage - parallel | 2 | % | ISO 294-4 |
| Mold shrinkage - normal | 1.8 | % | ISO 294-4 |
| Water absorption (23°C-sat) | 0.65 | % | ISO 62 |

| Mechanical properties | Value | Unit | Test Standard |
|--|--------------|-------------------|---------------|
| Tensile modulus (1mm/min) | 2850 | MPa | ISO 527-2/1A |
| Tensile stress at yield (50mm/min) | 64 | MPa | ISO 527-2/1A |
| Tensile strain at yield (50mm/min) | 9 | % | ISO 527-2/1A |
| Nominal strain at break (50mm/min) | 30 | % | ISO 527-2/1A |
| Tensile creep modulus (1h) | 2500 | MPa | ISO 899-1 |
| Tensile creep modulus (1000h) | 1300 | MPa | ISO 899-1 |
| Flexural modulus (23°C) | 2700 | MPa | ISO 178 |
| Charpy impact strength @ 23°C | 180.0 | kJ/m ² | ISO 179/1eU |
| Charpy impact strength @ -30°C | 160.0 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength @ 23°C | 6.5 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength @ -30°C | 6.0 | kJ/m ² | ISO 179/1eA |

| Thermal properties | Value | Unit | Test Standard |
|---|------------|--------|-------------------|
| Melting temperature (10°C/min) | 166 | °C | ISO 11357-1,-2,-3 |
| DTUL @ 1.8 MPa | 104 | °C | ISO 75-1/-2 |
| Coeff.of linear therm. expansion (parallel) | 1.1 | E-4/°C | ISO 11359-2 |

| Test specimen production | Value | Unit | Test Standard |
|--------------------------------|---------------|------|---------------|
| Processing conditions acc. ISO | 9988-2 | - | Internal |

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Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.15%

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.

Drying time: 3 - 4 h

Drying temperature: 120 - 140 °C

Temperature:

| | ϕManifold | ϕMold | ϕMelt | ϕNozzle | ϕZone4 | ϕZone3 | ϕZone2 | ϕZone1 | ϕFeed | ϕHopper |
|----------|-----------|-------|-------|---------|--------|--------|--------|--------|-------|---------|
| min (°C) | 190 | 80 | 190 | 190 | 190 | 190 | 180 | 170 | 60 | 20 |
| max (°C) | 210 | 120 | 210 | 210 | 210 | 200 | 190 | 180 | 80 | 30 |

Injection Molding

Standard injection moulding machines with three phase (15 to 25 D) plastating screws will fit.

| | |
|-------------------|------------|
| Melt temperature | 190-230 °C |
| Mould temperature | 80-120 °C |

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General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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