

Ultraform® H 2320 006

Acetal (POM) Copolymer

BASF Corporation

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

High-molecular-weight grade with somewhat increased flowability for injection molding of relatively thick-walled moldings.

General

| | |
|-----------------------------|--|
| Material Status | • Commercial: Active |
| Literature ¹ | • Processing (English) • Technical Datasheet (English) |
| UL Yellow Card ² | • E36632-531676 • E41871-233585 • E36632-531675 |
| Search for UL Yellow Card | • BASF Corporation • Ultraform® |
| Availability | • Asia Pacific • Europe |
| Features | • High Molecular Weight |
| Uses | • Thick-walled Parts |
| Agency Ratings | • EC 1907/2006 (REACH) |
| RoHS Compliance | • RoHS Compliant |
| Forms | • Granules |
| Processing Method | • Extrusion • Injection Molding |
| Multi-Point Data | • Isochronous Stress vs. Strain (ISO 11403-1) • Shear Modulus vs. Temperature (ISO 11403-1) • Isothermal Stress vs. Strain (ISO 11403-1) • Specific Heat vs. Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2) • Secant Modulus vs. Strain (ISO 11403-1) • Specific Volume vs Temperature (ISO 11403-2) |
| Resin ID (ISO 1043) | • POM |

| Physical | Nominal Value Unit | Test Method |
|---|-----------------------------|-------------|
| Density | 1.40 g/cm ³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (190°C/2.16 kg) | 2.90 cm ³ /10min | ISO 1133 |
| Molding Shrinkage | | ISO 294-4 |
| Across Flow | 2.1 % | |
| Flow | 2.1 % | |
| Water Absorption | | ISO 62 |
| Saturation, 23°C | 0.80 % | |
| Equilibrium, 23°C, 50% RH | 0.20 % | |

| Mechanical | Nominal Value Unit | Test Method |
|--|--------------------|--------------|
| Tensile Modulus | 2600 MPa | ISO 527-2 |
| Tensile Stress (Yield) | 64.0 MPa | ISO 527-2/50 |
| Tensile Strain (Yield) | 11 % | ISO 527-2/50 |
| Nominal Tensile Strain at Break | 30 % | ISO 527-2/50 |
| Tensile Creep Modulus ⁴ (1000 hr) | 1300 MPa | ISO 899-1 |

| Impact | Nominal Value Unit | Test Method |
|----------------------------------|-----------------------|-------------|
| Charpy Notched Impact Strength | | ISO 179/1eA |
| -30°C | 5.5 kJ/m ² | |
| 23°C | 6.0 kJ/m ² | |
| Charpy Unnotched Impact Strength | | ISO 179/1eU |
| -30°C | 200 kJ/m ² | |
| 23°C | 260 kJ/m ² | |

| Hardness | Nominal Value Unit | Test Method |
|--------------------------------------|--------------------|-------------|
| Ball Indentation Hardness (H 358/30) | 135 MPa | ISO 2039-1 |



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| Thermal | Nominal Value Unit | Test Method |
|---|----------------------|-------------|
| Heat Deflection Temperature 1.8 MPa, Unannealed | 95.0 °C | ISO 75-2/A |
| Melting Temperature | 166 °C | ISO 11357-3 |
| CLTE - Flow (23 to 55°C) | 1.2E-4 cm/cm/°C | ISO 11359-2 |
| Maximum Service Temperature - short cycle operation | 100 °C | |
| Electrical | Nominal Value Unit | Test Method |
| Surface Resistivity | 1.0E+13 ohms | IEC 60093 |
| Volume Resistivity | 1.0E+15 ohms·cm | IEC 60093 |
| Relative Permittivity (1 MHz) | 3.80 | IEC 60250 |
| Dissipation Factor (1 MHz) | 5.0E-3 | IEC 60250 |
| Comparative Tracking Index (Solution A) | 600 V | IEC 60112 |
| Flammability | Nominal Value Unit | Test Method |
| Flame Rating (1.60 mm) | HB | UL 94 |
| Additional Information | Nominal Value Unit | Test Method |
| Automotive Materials (> 1.00 mm) | Pass | FMVSS 302 |
| ISO Type | POM-K, M-GNR, 01-002 | ISO 9988-1 |

| Injection | Nominal Value Unit |
|------------------------|--------------------|
| Drying Temperature | 100 °C |
| Drying Time | 3.0 hr |
| Suggested Max Moisture | 0.20 % |
| Hopper Temperature | 200 °C |
| Rear Temperature | 200 °C |
| Middle Temperature | 200 °C |
| Front Temperature | 200 °C |
| Nozzle Temperature | 200 °C |
| Processing (Melt) Temp | 190 to 230 °C |
| Mold Temperature | 60.0 to 120 °C |
| Screw Speed | < 300 mm/sec |

Injection Notes

Residence Time: <10 min.

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ strain <= 0,5%, 23°C



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Where to Buy

Supplier

BASF Corporation

Wyandotte, MI USA

Telephone: 800-527-TECH

Web: <http://www.plasticsportal.com/usa>

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

Telephone: +49-40-78105-0

Web: <http://www.albis.com/>

Availability: Algeria, Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, United Kingdom

Ultrapolymers

Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.

Telephone: +32-11-57-95-57

Web: <http://www.ultrapolymers.com/>

Availability: Bosnia and Herzegovina, Croatia, Ireland, Italy, Macedonia, Portugal, Serbia, Spain, Turkey, United Kingdom

