

DOMAMID® H40 F

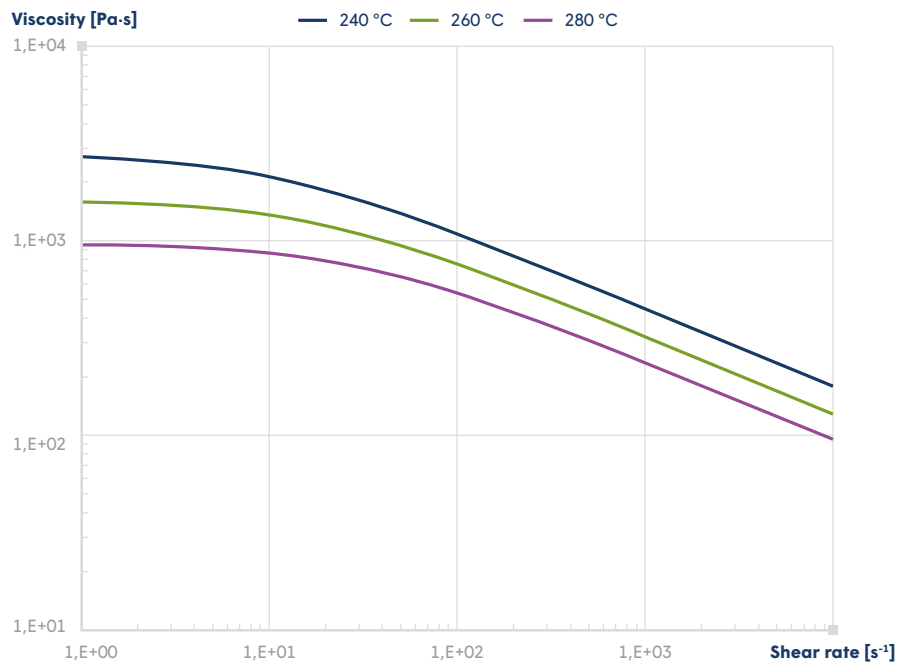
General Properties: DOMAMID®H40 F is a natural high quality polyamide 6 granulate and it is well suited for film extrusion applications. DOMAMID®H40 F is hygroscopic and will absorb moisture when exposed to high moisture content areas. The processing characteristics of the product will change if the moisture content increases. Certificates for all conformities, for example the food legislation of DOMAMID®H40 F with respect to the FDA requirements, 21 CFR 177-1500, EU Regulation 10/2011 and for other countries, will be provided on request.

| Parameter | Typical data | Unit | Test method/Condition |
|--|---------------------------------|--|---|
| Material specific properties | | | |
| Granulate colour and shape | Opaque natural white, spherical | | |
| Relative solution viscosity | 4.00 +/- 0.05 | - | Domo 88-16 According to ISO 307 1 % (w/v) PA-6 in 96 % (w/w) H ₂ SO ₄ , 20 °C |
| Density | 1.14 | g/cm ³ | ISO 1183 |
| Melting temperature | 220 | °C | DSC |
| Bulk density | 0.65 – 0.75 | g/cm ³ | Domo |
| Weight of 100 chips | 1.0 to 1.5 | g | Domo |
| Mechanical properties (Film) | | | |
| 2% Secant modulus (MD) | 475 | MPa | ISO 527 (23 °C/50 % RH) |
| Tensile strength (MD) | 33 | MPa | ISO 527 (23 °C/50 % RH) |
| Tensile strength (TD) | 29 | MPa | ISO 527 (23 °C/50 % RH) |
| Elongation at break (MD) | 275 | % | ISO 527 (23 °C/50 % RH) |
| Elongation at break (TD) | 310 | % | ISO 527 (23 °C/50 % RH) |
| Puncture resistance Force to break (F _{max}) | 35 | N | ASTM F 1306 or DIN EN 14477 (23 °C/50 % RH) |
| Static coefficient of friction | 1.5 | - | DIN EN ISO 8295 |
| Dynamic coefficient of friction | 1.7 | - | DIN EN ISO 8295 |
| MD: Machine direction, TD: Transverse direction; *Sample preparations Type of Extrusion: cast; Specimen thickness: 50 µm; Extruder temperature: 260 °C; Die temperature: 260 °C; Chill roll temperature: 110 °C. | | | |
| Other properties (Film) | | | |
| Transparency | 92 | % | ASTM D 1003 (according to DIN EN 2155-9) |
| Haze | 5 | % | ASTM D 1003 (according to DIN EN 2155-9) |
| Oxygen permeability | 22 | cm ³ /(m ² ·d·bar) | ISO 15105-2/DIN 53380-3 (23 °C/0 % RH) |
| Oxygen permeability | 36 | cm ³ /(m ² ·d·bar) | ISO 15105-2/DIN 53380-3 (23 °C/85 % RH) |
| Water permeability | 27 | g/(m ² ·d) | ISO 15106-3 (23 °C/85 % RH) |

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Viscosity-shear rate



| Parameter | Typical data | Unit | Test method/Condition |
|--|--------------|------|-----------------------|
| Mechanical properties (Injection Molding) | | | |
| Tensile modulus | 3000 | MPa | ISO 527 /dry |
| Tensile stress at break | 50 | MPa | ISO 527 /dry |
| Tensile strain at break | 50 | % | ISO 527 /dry |
| Flexural modulus | 2500 | MPa | ISO 178 /dry |
| Flexural strength | 110 | MPa | ISO 178 /dry |

Product handling

The EU material safety data sheet is binding upon handling the product. **Storage:** Keep the product cool and dry. Keep all bag or octabin packaging closed until use and close them moisture-tightly immediately after use. Avoid direct sunlight. If the specified conditions are met, we guarantee a maximum storage life of 6 months from the date of the invoice.

Inspection certificate

An inspection certificate in accordance with EN 10204 type 3.1 will be enclosed in the delivery, containing the following parameters:
 • Relative solution viscosity • Moisture • Extract

Disclaimer: These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufactures in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of our products or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.