

DOMAMID® 6ST4

Polyamide 6, high impact resistance, for injection moulding.

12.02.2014

| TYPICAL PROPERTIES | CONDITION | STANDARD | UNIT | VALUE |
|-------------------------------------|----------------------|-------------|----------------------|---------------------|
| PHYSICAL | | | | |
| Density | | ISO 1183 | [g/cm ³] | 1,07 |
| Moisture absorption | T=23°C / 50%RH | ISO 62 | [%] | 2,2 |
| Mold shrinkage parallel | 72 hrs, 23°C, 50% RH | ISO 2577 | [%] | 1,4 - 1,6 |
| Mold shrinkage transverse | 72 hrs, 23°C, 50% RH | ISO 2577 | [%] | 1,7 - 1,9 |
| RHEOLOGICAL | | | | |
| Viscosity number | | ISO 307 | [ml/g] | 145 |
| MECHANICAL | | | | |
| | | | | dam / cond.* |
| Tensile modulus | 1 mm/min | ISO 527 | [MPa] | 1900 / 800 |
| Tensile strain at break | 50 mm/min | ISO 527 | [%] | >50 / >50 |
| Tensile stress at yield | 50 mm/min | ISO 527 | [MPa] | 50 / 30 |
| Flexural modulus | 2 mm/min | ISO 178 | [MPa] | 1600 / 700 |
| Flexural strength | 2 mm/min | ISO 178 | [MPa] | 65 / 30 |
| Charpy unnotched | +23 °C | ISO 179/1eU | [kJ/m ²] | NB / NB |
| Charpy unnotched | -30°C | ISO 179/1eU | [kJ/m ²] | NB / NB |
| Charpy notched | +23 °C | ISO 179/1eA | [kJ/m ²] | 70 / 120 |
| Charpy notched | -30°C | ISO 179/1eA | [kJ/m ²] | 16 / - |
| Izod impact unnotched | +23 °C | ISO 180/1A | [kJ/m ²] | NB / NB |
| Izod impact notched | +23 °C | ISO 180/1A | [kJ/m ²] | 65 / 120 |
| Izod impact notched | -30°C | ISO 180/1A | [kJ/m ²] | 15 / - |
| Hardness Rockwell | | ISO 2039/2 | [ScaleR] | 100 / - |
| THERMAL | | | | |
| Melting point | DSC | ISO 11357-1 | [°C] | 222 |
| Heat Deflection Temperature (HDT-B) | 0,45 MPa | ISO 75 | [°C] | 135 |
| Heat Deflection Temperature (HDT-A) | 1,80 MPa | ISO 75 | [°C] | 50 |
| VICAT softening temperature | 50°C/h - 50N | ISO 306 | [°C] | 170 |
| ELECTRICAL | | | | |
| Volume resistivity | | IEC 93 | [Ω·cm] | 10 ¹⁵ |
| Surface resistivity | | IEC 93 | [Ω] | 10 ¹³ |
| BURNING BEHAVIOUR | | | | |
| Flammability | 0,8 mm | UL 94 | [Class] | HB |
| Burning rate (FMVSS) | | FMVSS 302 | [mm/min] | < 100 |

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products

*: conditioned according to ISO 1110

PROCESSING CONDITIONS:

| | |
|-------------------------------|------------------|
| Drying temperature/time | : 75-85°C / 2-4h |
| Recommended melt temperature | : 240-260 °C |
| Recommended mould temperature | : 60-90 °C |

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 each product 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.