# DOMO® Engineering Plastics
## Technical Data Sheet

# ECONAMID® FL 6GM3010H1

***(ECONAMID 6GM304FLH)***

*Polyamide 6, 30% glass fibre and mineral filler, heat stabilized, for injection moulding.*

20.04.2016

| TYPICAL PROPERTIES | CONDITION | STANDARD | UNIT | VALUE |
|---|---|---|---|---|
| **PRODUCT IDENTIFICATION** | | | | |
| ISO 1043 abbreviation | | ISO 1043 | | PA6-(GF10+MD20) |
| ISO 1874-1 designation | | ISO 1874-1 | | PA6,MH,14-060,GF10+MD20 |
| **PHYSICAL** | | | | |
| Density | | ISO 1183 | [g/cm³] | 1,36 |
| Mold shrinkage parallel | 72 hrs, 23°C, 50% RH | ISO 2577 | [%] | 0,3 - 0,5 |
| Mold shrinkage transverse | 72 hrs, 23°C, 50% RH | ISO 2577 | [%] | 0,7 - 0,9 |
| **RHEOLOGICAL** | | | | |
| Melt Volume Rate (MVR) | 275 °C - 5,0 kg | ISO 1133 | [cm³/10 min] | 75 |
| Viscosity number | 96% H2SO4 | ISO 307 | [ml/g] | 135 |
| **MECHANICAL** | | | | dam / cond.* |
| Tensile modulus | 1 mm/min | ISO 527 | [MPa] | 6000 / 3500 |
| Tensile stress at break | 5 mm/min | ISO 527 | [MPa] | 100 / 60 |
| Tensile strain at break | 5 mm/min | ISO 527 | [%] | 3 / 10 |
| Flexural modulus | 2 mm/min | ISO 178 | [MPa] | 5300 / - |
| Flexural strength | 2 mm/min | ISO 178 | [MPa] | 150 / - |
| Charpy unnotched | +23 °C | ISO 179/1eU | [kJ/m²] | 30 / 90 |
| Charpy notched | +23 °C | ISO 179/1eA | [kJ/m²] | 5 / 10 |
| Izod impact unnotched | +23 °C | ISO 180/1U | [kJ/m²] | 25 / 85 |
| Izod impact notched | +23 °C | ISO 180/1A | [kJ/m²] | 4,5 / 10 |
| **THERMAL** | | | | |
| Melting point | DSC | ISO 11357-1 | [°C] | 221 |
| Heat Deflection Temperature (HDT-B) | 0,45 MPa | ISO 75 | [°C] | 205 |
| Heat Deflection Temperature (HDT-A) | 1,80 MPa | ISO 75 | [°C] | 175 |
| VICAT softening temperature | 50°C/h - 50N | ISO 306 | [°C] | 200 |
| **ELECTRICAL** | | | | |
| Volume resistivity | | IEC 60093 | [Ω·cm] | $10^{15}$ |
| Surface resistivity | | IEC 60093 | [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 black products
*: conditioned according to ISO 1110

| PROCESSING CONDITIONS: | |
|---|---|
| Drying temperature/time | : 75-85°C / 2-4h (with dew point of dried air < -30 °C) |
| Recommended melt temperature | : 240-270 °C |
| Recommended mould temperature | : 80-90 °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. ECONAMID grades are not recommended for injection moulding hot runner systems with a diameter below 1mm*



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