This polyamide 6 grade, containing a metal detectable additive, has been specifically tailored for use in the food processing and packaging industries where it can easily be traced by the conventional metal detection systems installed to detect contamination of foodstuffs (results may vary depending on the sensitivity of the metal detection system used). Nylatron MD® presents good mechanical strength, stiffness, impact strength and wear resistance, it also features a food contact compliant composition (=FDA).

**Physical properties (indicative values *)**

**PROPERTIES**

**Mechanical Properties at 23 °C (7)**

- Tensile test (6):
  - Tensile strength (9): ISO 527-1/-2 MPa 87
  - Tensile strain at yield (9): ISO 527-1/-2 % 14
  - Tensile strain at break (9): ISO 527-1/-2 % 25
  - Tensile modulus of elasticity (10): ISO 527-1/-2 MPa 4000

- Compression test (11):
  - Compressive stress at 1 / 2 / 5 % nominal strain (10) ISO 604 MPa 35 / 67 / 92

- Flexural test (12):
  - Flexural strength ISO 178 MPa
  - Flexural modulus of elasticity ISO 178 MPa

- Charpy impact strength — unnotched (13) ISO 179-1/1A kJ/m² 80
- Charpy impact strength — notched ISO 179-1/1A kJ/m² 3

- Rockwell Hardness (14) ISO 2039-2 85

- Dynamic Coefficient of Friction (15) ISO 7148-2 0.4-0.6
- Wear rate ISO 7148-2 15 µm/km

**Electrical Properties at 23 °C**

- Electric strength (16) IEC 60243-1 kV/mm
- Volume resistivity IEC 60093 Ohm.cm >10E12
- Surface resistivity ANSI/ESD STM 11.11 Ohm/sq. >10E11
- Relative permittivity & ε-1 at 1 MHz IEC 60250
- Dielectric dissipation factor tan δ - at 1 MHz IEC 60250

Note: 1 g/cm³ = 1,000 kg/m³; 1 MPa = 1 N/mm²; 1 kV/mm = 1 MV/m.

Nylatron® is a registered trademark of Mitsubishi Chemical Advanced Materials.

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Polyamide

**Nylatron® MD**

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