# NYLACAST NYLASTAT ATEX

| PROPERTY | TEST METHOD | NOTES | UNITS | VALUE |
|---|---|---|---|---|
| **GENERAL** | | | | |
| Colour | - | - | - | Black |
| **MECHANICAL** | | | | |
| Tensile Strength | ISO 527-1/2:1993 | - | MPa | 60 |
| Elongation at Break | ISO 527-1/2:1995 | - | % | 4 |
| Tensile Modulus | ISO 527-1/2:1994 | - | GPa | 3.60 |
| Flexural Strength | ISO 178:2001 | - | MPa | 94 |
| Flexural Modulus | ISO 178:2002 | - | GPa | 2.8 |
| Compressive Strength | ISO 604:2002 | - | MPa | 145 |
| Compressive Modulus | ISO 604:2003 | - | GPa | 1.7 |
| Impact Strength | ISO 180:2000 | - | $kJ/m^2$ | 5.5 |
| Density | ISO 868:2003 | - | $g/cm^3$ | 1.13 |
| **THERMAL** | | | | |
| Melting Point | ISO 1218 | - | °C | 228 |
| **ELECTRICAL** | | | | |
| Comparative Tracking Index | IEC 60112:2003-01 | - | V | 400 |
| Volume Resistivity | IEC 60093:1980-01 | - | Ω.cm | $10^4$ |
| Surface Resistivity | IEC 60093:1980-01 | - | Ω | $10^6$ |
| Dielectric Strength | ASTM D149 | - | kV/mm | 0.3 |
| Dielectric Constant (at 100 Hz) | ASTM D150 | - | - | 14.4 |
| Dissipation Factor (at 100 Hz) | ASTM D150 | - | - | 0.26 |

## NOTES

- Mechanical properties of semi-finished products are highly dependent on degree of crystallinity (due to nucleation by additives and pigments), part geometry and dimensions. The value of actual mechanical properties of products may differ from the values listed.
- In the case of Polyamides, mechanical properties change due to the absorption of moisture. The rate and extent of these changes are therefore contingent on the surrounding atmosphere, ambient temperature and humidity, and duration of exposure. Property changes due to the influence of moisture absorption are primarily limited to a region beginning at the surface of the material and extending within to a certain depth. Part wall thickness can therefore influence the proportion of the material affected. This is also the case for mechanical property changes resulting from exposure to high temperatures in which the polymer undergoes thermal ageing by oxidation.
- All data and information contained in this datasheet supersedes any previously published or historical data. Decisions or outcomes arising from the use of outdated or superseded information is fully unsupported.
- As such, the information stated previously is intended to serve as a guide to aid in material selection and does not guarantee specific properties or the suitability of a material for a particular application. No warranties or representations are given in respect of the foregoing information.