

Nylon 6

Technical Information:

Information to be used as a guide only. It corresponds with our current knowledge and indicates possible applications. We cannot guarantee suitability for a specific application. Unless otherwise stated these values represent averages taken from injection moulded samples.

| Properties | Unit | Test Method DIN ASTM | Result Dry | Result Wet* |
|--|---------------------|-------------------------|-------------|----------------|
| Mechanical | - | - | - | - |
| Density | g/cm ³ | 53479 | 1.14 | - |
| Tensile strength at yield | MPa | 53455 | 85 | 60 |
| Tensile strength at break | MPa | 53455 | - | - |
| Elongation at Break | % | 53455 | 70 | 200 |
| Modulus of elasticity in tension | MPa | 53457 | 3200 | 1800 |
| Modulus of elasticity in flexure | MPa | 53457 | - | - |
| Ball indentation hardness | MPa | 53456 | 160 | 70 |
| Impact strength (Charpy) | KJ/m ² | 53453 | no break | - |
| Creep rupture strength after 1000 hours with static load | MPa | - | 45 | - |
| Time yield limit for 1% elongation after 1000 hours | MPa | - | 4.5 | - |
| Coefficient of friction against hardened and ground steel p+0,05 N/mm ² , v=0,6 m/s | - | - | 0.38 - 0.45 | - |
| Wear conditions as above | µm/km | - | 0.23 | - |
| Thermal | - | - | - | - |
| Crystalline melting point | °C | 53736 | 220 | - |
| Glass transition temperature | °C | 53736 | 40 | 5 |
| Heat distortion temperature method A | °C | ISO 75 | 75 | - |
| Heat distortion temperature method B | °C | ISO 75 | 190 | - |
| Max. service temperature short term | °C | - | 160 | - |
| Max. service temperature long term | °C | - | 100 | - |
| Coefficient of thermal conductivity | W/(m K) | - | 0.23 | |
| Specific heat | J/(g K) | - | 1.7 | |
| Coefficient of thermal expansion | 10 ⁻⁵ /K | - | 7 | |
| Electrical | - | - | - | |
| Dielectric constant at 10 (5) Hz | - | 53483 | 3.7 | 7 |
| Dielectric loss factor at 10(5) Hz | - | 53483 | 0.031 | 0.3 |
| Specific Volume Resistance | Ωcm | 53482 | 10 (15) | 10 (12) |
| Surface Resistance | Ω | 53482 | 10 (13) | 10 (10) |
| Dielectric strength 1mm | kV/mm | 53481 | 50 | 20 |
| Tracking resistance | - | 53480 | CTI600 | CTI600 |

| | | | | |
|--|---|-------|--------------------|---|
| Miscellaneous | - | - | - | - |
| Moisture Absorption: Equilibrium in standard atmosphere (23°C / 50% relative humidity) | % | 53714 | 3 | |
| Water absorption at saturation at 23°C | % | 53495 | 9.5 | |
| Resistance to hot water, washing soda | - | - | limited resistance | |
| Flamability | - | UL 94 | HB | |
| Resistance to weathering | - | - | not resistant | |

ALLPLASTICS ENGINEERING PTY LTD
Unit20, 380 Eastern Valley Way
CHATSWOOD NSW 2067

Phone (02) 9417 6111 Fax (02) 9417 6169
E-mail: sales@allplastics.com.au
Web: www.allplastics.com.au