

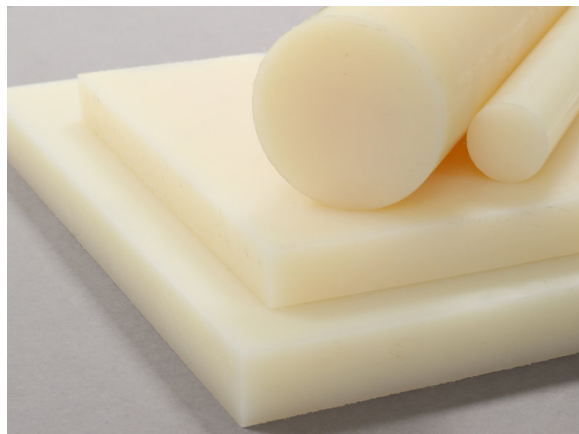


Technical Data Sheet

Nylon 6 Sheet & Rod

Natural / Black

Cast polyamide produced by direct polymerisation. Due to its casting process, this material is available in almost any size of sheet, rod and tube, as well as the ability to be custom cast to specific shapes. Furthermore, it is possible to modify product formulation with various additives to enhance performance and to suit applications.



product information

Name: Nylon 6
Other names: Ertalon 6SA, Centromid 6 E
Abbreviation: PA 6, Polyamide

key characteristics

- General purpose grade
- Favourable electrical insulating ability
- Available in smaller diameters
- Excellent wear resistance
- Food compliant

applications

- Gears
- Bushes
- Washers
- Spacers
- Rollers
- Wearstrips & Guides

PLASTICS



Certificate Number: 14352
ISO 9001



Care should be taken in selecting the most suitable quality for each application. Advice is available, but final responsibility remains with the customer.

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Contact

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Nylon 6 Sheet & Rod

Physical Properties

| | Test | Unit | Result |
|---|------------|-------------------|--------|
| 1. Specific gravity | ISO 1183 | g/cm ³ | 1.14 |
| 2. Water absorption | ISO 62 | % | 9 |
| 3. Maximum service temp. Upper temp limit (no stronger mechanical stress involved) | Short Term | °C | 160 |
| | Long Term | °C | 85 |
| Lower temp limit | - | °C | -40 |

Mechanical Properties

| | Test | Unit | Result |
|---------------------------------------|---------------|-------------------|----------|
| 1. Tensile stress at yield | ISO 527-2 | Mpa | 76 |
| 2. Elongation at yield | ISO 527-2 | % | - |
| 3. Tensile strength at break | ISO 527-2 | Mpa | - |
| 4. Elongation at break | ISO 527-2 | % | >50 |
| 5. Impact strength | ISO 179/1eU | kJ/m ² | no break |
| 6. Notch impact strength | ISO 179/1eA | kJ/m ² | 5.5 |
| 7. Ball Indentation/Rockwell hardness | ISO 2039-1/-2 | Mpa | 150/M85 |
| 8. Shore-D | - | - | - |
| 9. Flexural modulus of elasticity | ISO 178 | Mpa | - |
| 10. Tensile modulus of elasticity | ISO 527 | Mpa | 3250 |

Thermal Properties

| | Test Method | Unit | Result |
|--|-------------|------------------------------------|--------|
| 1. Vicat-softening point VST/B/50 | ISO 306 | °C | - |
| 2. Heat deflection temperature HDT/A | ISO 75-2 | °C | - |
| 3. Coefficient of linear thermal expansion | ISO 11359 | K ⁻¹ x 10 ⁻⁴ | 0.9 |
| 4. Thermal conductivity at 23 °C | DIN 52612 | W/(m*K) | 0.28 |

Electrical Properties

| | Test Method | Unit | Result |
|---|-------------|--------------------|------------------|
| 1. Volume resistivity | VDE 0303 | Ω x m | - |
| 2. Surface resistivity | IEC 6093 | Ω | 10 ¹³ |
| 3. Dielectric constant at 1MHz | IEC 60250 | - | 3.3 |
| 4. Dielectric dissipation factor at 1 MHz | IEC 60250 | 10 ⁶ Hz | 0.021 |
| 5. Dielectric strength | VDE 0303 | kV/mm | 30 |
| 6. Comparative tracking index (CTI) | IEC 60112 | - | 600 |

Additional Data

| | Test Method | Unit | Result |
|--------------------|-------------|------|--------|
| 1. Bondability | - | - | - |
| 2. Food compliance | FDA | - | + |
| 3. Flammability | UL94 | - | HB |

All The above information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.

| Key | | |
|-----|---------|---------------|
| Yes | Limited | No or no data |
| + | 0 | - |

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