

Technical Data Sheet

Nylon 6 Sheet & Rod - Cast

Oil Filled

Nylon 6 Cast (Modified) nylon 6 of green / yellow: internally lubricated with mineral oil filler, which improves friction coefficient by up to 50%, and wear resistance tenfold.

Moisture absorption is significantly improved. Ideally suited for more arduous tasks, such as high load, slow speed and dry running applications where standard nylon 6 would not perform effectively. Due to its lower coefficient of friction and the resulting improved heat build-up in sliding applications, nylon 6 of can operate with higher loads and speeds than other thermoplastics.

product information

Name: Cast Polyamide 6

Other names: Ertalon 6 PLA Abbreviation: Nylon 6 Cast

Key characteristics

- Better lubrication than MoS2
- Self lubricating
- High loaded and slow moving parts
- Reduced coefficient of friction up to 50%
- Better wear resistance

Applications

- Chain guides
- Bearings
- Wear pads
- Cams
- Conveyor parts
- Gears



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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Munsch & Co/PTM Ltd

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United Kingdom

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Physical Properties

1. Specific gravity
2. Water absorption till saturation 23° C
3. Maximum service temp. Upper temp limit (no stronger mechanical stress involved)
- Lower temp limit

| Test | Unit | Result |
|------------|-------------------|--------|
| ISO 1183 | g/cm ³ | 0.93 |
| - | % | 6.3 |
| Short Term | °C | 165 |
| Long Term | °C | 105 |
| - | °C | -20 |

Mechanical Properties

1. Tensile strength at yield
2. Elongation at yield
3. Tensile strain at break
4. Unnotched impact strength
5. Notch impact strength
6. Unnotched impact strength
7. Ball indentation / Rockwell hardness
8. Shore-D
9. Flexural modulus of elasticity
10. Tensile modulus of elasticity

| Test | Unit | Result |
|---------------|-------------------|---------|
| ISO 527-1/-2 | Mpa | 72/- |
| - | % | - |
| ISO 527-1/-2 | % | 25 |
| ISO 179-1/1eU | kJ/m ² | 50 |
| ISO 179-1/1eA | kJ/m ² | 4 |
| ISO 179-1/1eU | kJ/m ² | 50 |
| ISO 2039-1/-2 | Mpa | 145/M82 |
| DIN 53505 | - | - |
| - | Mpa | - |
| ISO 527-1/-2 | Mpa | 3000 |

Thermal Properties

1. Vicat-softening point VST/B/50
2. Heat deflection temperature HDT/A
3. Coefficient of linear thermal expansion 23 - 100°C
4. Thermal conductivity at 23 °C

| Test Method | Unit | Result |
|-------------|---------|---------------------|
| - | °C | - |
| ISO 75-1/-2 | °C | 75 |
| - | m/(m.K) | 90x10 ⁻⁶ |
| - | W/(m*K) | 0.28 |

Electrical Properties

1. Volume resistivity
2. Surface resistivity
3. Dielectric constant at 1MHz
4. Dielectric dissipation factor at 1 MHz
5. Electrical strength
6. Comparative tracking index (CTI)

| Test Method | Unit | Result |
|-------------|--------------------|--------------------|
| IEC 6093 | Ω x m | > 10 ¹⁴ |
| IEC 6093 | Ω | > 10 ¹³ |
| - | - | - |
| IEC 60250 | 10 ⁶ Hz | 0.016 |
| IEC 60243-1 | kV/mm | 22 |
| IEC 60112 | - | 600 |

Additional Data

1. Bondability
2. Food compliance
3. Flammability

| Test Method | Unit | Result |
|-------------|------|--------|
| - | - | - |
| FDA | - | - |
| 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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