

Technical Data Sheet

PE500 Sheet

Black/Green / Red / Blue / Yellow / Natural / Burgundy

PE500 is a versatile, food compliant material available in a wide range of colours. It's unique properties include a low coefficient of friction, high impact strength and abrasion resistance. PE500 has a wide operating temperature of -80°C to +80°C.



product information

Name: High Molecular Weight Polyethylene

Other names:

Abbreviation: PE500

key characteristics

- Economical alternative to PE 1000
- Excellent wear and abrasion resistance
- Good noise dampening properties
- Food compliant

applications

- Cutting boards
- Chutes
- Liners
- Food processing
- Chain parts

We also offer PE300.

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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PE500 Sheet

Physical Properties

1. Specific gravity
2. Water absorption 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 | 0.96 |
| - | % | 0.01 |
| Short Term | °C | 120 |
| Long Term | °C | 80 |
| - | °C | -80 |

Mechanical Properties

1. Tensile strength at yield
2. Elongation at yield
3. Abrasion (sand slurry test)
4. Elongation
5. Impact strength
6. Notch impact strength
7. Ball Indentation
8. Shore-D
9. Modulus of elasticity

| Test | Unit | Result |
|------------|-------------------|----------|
| ISO 527 | Mpa | >28 |
| ISO 527 | % | 8 |
| ISO 527 | % | >200 |
| ISO 527 | % | 7650 |
| ISO 179 | kJ/m ² | no break |
| ISO 179 | kJ/m ² | 25 |
| ISO 2039-1 | Mpa | 50 |
| DIN 53505 | - | 63/65 |
| ISO 527 | Mpa | 1100 |

Thermal Properties

1. Vicat-softening point
2. Coefficient of linear thermal expansion
3. Thermal conductivity

| Test Method | Unit | Result |
|-------------|---------|------------------------|
| ISO 306 | °C | 80 |
| ISO 11359 | %-1 | 1.5-2 10 ⁻⁴ |
| DIN 52612 | W/(m*K) | >0.4 |

Electrical Properties

1. Surface resistivity
2. Dielectric strength

| Test Method | Unit | Result |
|-------------|-------|------------------|
| IEC 6093 | Ω | 10 ¹⁴ |
| IEC 60243 | kV/mm | 150 |

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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