

UHMW-PE is a subset of the thermoplastic -polyethylene. It has extremely long chains, with molecular weight numbering in the millions, usually between 2 and 6 million, strengthening intermolecular interactions resulting in highest impact strength of any thermoplastic very low coefficient of friction, self-lubricating, and is highly resistant to abrasion (15 times more resistant to abrasion than carbon steel). Its coefficient of friction is significantly lower than that of Polyamide and Acetal, and is comparable to that of PTFE, but UHMWPE has better abrasion resistance than PTFE.

Key Features:-

- High Abrasion Resistance
- Low Specific Weight
- Low water absorption
- Odorless
- Good Low temp Resistance
- Low Coefficient of Friction
- High chemical resistance
- High Impact Strength
- Food Safe
- Protection from Stress Cracking
- Weathering Resistance

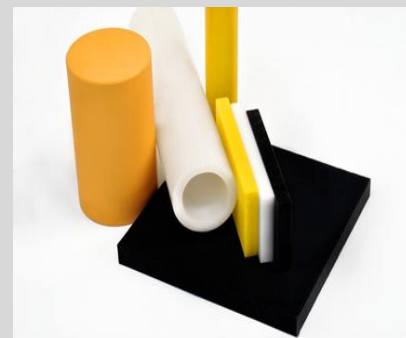
Standard Sizing:-

| Thickness (in mm) | Width x Length (in m) | Packing |
|-------------------|-----------------------|---------|
| 20 -75 | 1.23 x 2.15 | 1 no. |
| 8 -175 | 1.23 x 1.99 | |
| 6 - 50 | 1.00 x 2.00 | |
| 20 - 100 | 0.66 x 2.52 | |

Grades

PE 300, PE 500, PE 1000

Colours: White, Black , Custom



Typical Applications:-

- Transporting machinery
- Star Wheels, Idler Sprockets
- Textile machinery
- Bottling Machinery
- Food processing machinery components
- Harbor and shipbuilding machinery
- Architecture & agriculture machinery
- Conveyor Systems
- Paper-making machinery
- Dyeing decoration
- Abrasion Resistant Lining
- Chemical Equipment
- Chute liners and Truck /hopper liners
- Shipping Industry
- Mining Industry
- Construction
- Chemical Industry

Typical Properties

| Properties | Test Method | Unit | Value |
|---------------------------------------|--------------------|-------------------|--------------|
| Specific gravity (ρ) | ISO 1183 | g/cm ³ | 0.93 |
| Max. permissible service temperature | | °C | 90 |
| Lower permissible service temperature | | °C | -150 |
| Tensile strength at yield | ISO 527 | Mpa | >17 |
| Tensile strength at break | ISO 527 | Mpa | >35 |
| Elongation at break | ISO 527 | % | ≥50 |
| Notch impact strength | ISO 179 | KJ/m ² | o.B. |
| Impact Strength | ISO 179 | KJ/m ² | No Break |
| Modulus of elasticity | ISO 899 | Mpa | 680 |
| Vicat Softening Temperature | ISO 306 | °C | 80 |
| Shore Hardness | ISO 868 | Shore- D | 61 |

N.B.: Technical data refers to average values. The information provided above is based on the values measured in our laboratory as well as independent laboratories. The quoted values are based on specific resin properties and are subject to change without prior notice.

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