Polyurethane Wear Liners & Sheets

HMA WEAR SOLUTIONS

URETECH WEAR · CORROSION · INSULATION

Polyurethane sheets & liners are made of high quality cast polyurethanes, which provides excellent wear and impact resistance in raw material handling applications. Our liners are often used as a replacement for steel liners.

FEATURES & BENEFITS

- High wear and impact resistant
- Excellent replacement for steel liners
- Six times lighter than steel
- Preventative wear indicators
- Safe to work with
- Dramatically reduces installation times

PRODUCT INFORMATION

- Standard sheet size: 2400 x 1200 mm
- Thickness range 10 mm to 100 mm
- Wear indicators are standard (>16 mm)
- Composite backing plates for stiffening

TYPICAL APPLICATIONS

- Feeders & Screens
- Underground hoppers
- Chutes & Bunkers
- Rolling stock hoppers
- Truck linings
- Launders
- Mill feed chutes
- Mine skips
- Reclaimers
- Mine Loadboxes
- Cyclones
- Scrubbers

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TECHNICAL DATA

Product Code	Uretech-TE90 (Hot cure castable polyurethane)
Description	Uretech Polyurethane Sheets & Liners with composite backing plates

DESCRIPTION

Polyurethane wear liners with composite backing plates are light weight and highly durable. It can be manufactured into different thicknesses, shapes, sizes, colours and hardnesses. Polyurethane wear liners have excellent resistance to wear and impact and are frequently used to replace traditional steel liners. It can also be used in applications where noise levels are excessively high and needs to be reduced.

Even though polyurethane can be manufactured into different hardnesses, additional stiffness is required for liners that need to be mechanically fixed (i.e. bolted on) onto sub-structures. Uretech has developed a unique composite backing plate for additional stiffness. The combination of polyurethane and composite has the added benefit that it can also be cut to size, once the sheet or liner has been manufactured.

The mechanical properties of polyurethane liners can be altered by adding certain raw materials.

Typical additions can be used to make polyurethane more fire retardant, to improve the sliding co efficiency, etc.

SPECIFICATIONS	
Maximum Service Temperature	80°C (at continuous heat exposure)
Density (excluding backing plate)	1200 kg/m^3
Shelf Life	10 Years [1]
Toxicity Index	6.99 [2]

1. When kept out of the sun and not submerged in water
2. For South African market only. PU liners are deemed "spare parts" for underground use.

CHARACTERISTICS

- Softer polyurethanes are very flexible, while harder polyurethanes are stiff.
- Polyurethane elastomers are not brittle and has excellent impact resistance.
- Polyurethane elastomers have very good memory.
- Polyurethane esters in general has better wear resistance compared to polyurethane ethers.
- Polyurethane ethers has better long-term water resistance compared to polyurethane esters.
- Polyurethanes are classified as thermosets.

CHEMICAL COMPOSITION

Uretech sheets and liners are manufactured from pure, hot cure castable polyurethane, which is post cured at approximately 100°C for more than 8 hours. The polyurethane used is a toluene diisocyanate (TDI) terminated pre-polymer based on a polyester polyol. When cross-linked with MOCA, high performance urethane elastomers of 88 to 93 A hardness are produced.

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