

# EXCEL M-LINER



*Palm Oil Mill Equipment Specialist*

[www.excelmech.com.my](http://www.excelmech.com.my)



# WEAR LINERS FOR SCRAPER CONVEYOR CHAIN

## INTRODUCTION

M-Liners is made of Ultra High Molecular Weight Polyethylene(UHMW-PE) material, a type of thermo-plastic, which combines the featured characteristics of all types of plastics, excellent in withstanding wear and tear, impact resistance and chemical corrosion, self-lubricating, working against low temperature, low in abrasion loss, absorbing energy, anti-ageing and preventing build-up of static electricity.

It is widely used as conveyor wear lining for palm oil mills; interior lining of the coal house of thermo power plant, coal mines and coking plants etc; wear lining for storage tanks in cement factories, steel mills and aluminium factories, the granary of food industry, feedstuff industry and pharmaceutical factories, hoppers at wharfs as well as lining for cabin of bulk ships. It prevents powder material sticking on cabin and reduces the damage to cabin wall by loading machinery, due to non-material sticking properties, it can speed up loading process, reduce clogging significantly.

## A

Extremely high anti-abrasion: Owing to its particular molecular structure, anti-abrasion performance of UHMW-PE is higher than ordinary metal and plastic: 6.6 times of carbon steel, 5.5 times of stainless steel, 27.3 times of brass, 6 times of nylon and 5 times of PTFE.

| Material     | UHMW-PE | PTFE | Nylon 6 | A3 Steel | PERed | Copper |
|--------------|---------|------|---------|----------|-------|--------|
| Wearing rate | 0.32    | 1.72 | 3.30    | 7.36     | 8.63  | 13.12  |

## B

Excellent self-lubricating performance, low friction coefficient and flow resistance, resulting in low energy consumption.

| Material            | UHMW-coal | Cast stone | Stain steel plate-coal | Stain steel plate-coal | Concrete-coal |
|---------------------|-----------|------------|------------------------|------------------------|---------------|
| Wearing coefficient | 0.15-0.25 | 0.30-0.45  | 0.45-0.58              | 0.30-0.40              | 0.60-0.70     |

## C

Good in resisting impact, flexibility. Even under low temperature and thunder impact, it does not break. It doesn't become fragile even under -180°C surrounding temperature.

| Material                 | UHMW-coal | Cast stone plate | PAE 6 | POM  | F4 | A3      | 45° |
|--------------------------|-----------|------------------|-------|------|----|---------|-----|
| Impact Intensity (kg/m3) | 100-160   | 1.6-15           | 6-11  | 8-13 | 16 | 300-400 | 700 |

## D

Excellent in resisting chemical corrosion: it works against all acid, alkali, salt medium except concentrated sulphuric acid, dense nitric acid and some organic solvent.

## E

Free from toxin, smell or exudates.

## F

Good electric resistance, relatively low in water absorption.

## G

Good performance in resisting environment stress crack, 200 times of ordinary PE.



For further information, please contact sales office, or:



**Excelmech Engineering Sdn. Bhd.** (Company No. 862039-X)

Lot 2828, Jln Kelkati 32/168, Off Jln. Sri Gambut Bukit Naga,  
Seksyen 32, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.  
Tel: 603-5167 1589 Fax: 603-5167 2588  
E-mail: contact@excelmech.com.my



SCAN ME