



CASE STUDY -

LINASHIELD THERMOPLASTIC POLYURETHANE

ESKOM - KUSILE, MPUMALANGA

AT A GLANCE CHALLENGES

- Coal tipper covers had to be replaced every 12 months
- Yearly downtime and additional costs were incurred for these replacements.

BENEFITS

- Highest abrasion resistance compared to traditional linings
- Low co-efficient of friction (non-stick liners)
- Elasticity in broad temperature range
- High tear resistance
- No skin irritation
- No plasticizers, so enhanced longevity compared to rubber
- Perfect for welding & bonding
- Excellent low-temp impact strength
- Lasts longer than rubber linings, reducing downtime and contributes to cost savings
- Reduces vibration
- UV resistant

PROBLEM DESCRIPTION

ESKOM Kusile used rubber sheets as dust covers on top of the coal silos. The tipper car is designed to open and closed these covers as it moves from one silo to the next. One tipper car uses three covers, of which two is 480mm wide and the third is 680mm wide. All three covers are 50m long.

ESKOM had to replace these covers every 12 months, which is a time consuming and expensive task.

SOLUTION

Linashield was chosen as the solution due to it being:

Flexible
Abrasion-resistant
Tear-resistant

TEST RESULT

One tipper car line was used for trial purposes. The covers were installed in December 2019 and are still in operation after 19 months. It expected that the Linashield will last 3 to 4 times longer than the original rubber application.





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AT A GLANCE

PRODUCT:	LinaShield Thermoplastic Polyurethane
LOCATION:	ESKOM, Kusile, Mpumalanga, RSA
PRODUCT DESCRIPTION:	5mm Linashield
SHORE A HARDNESS:	85°
APPLICATION:	5mm Coal tipper car covers
MAXIMUM PARTICLE SIZE:	Mechanical abrasion from equipment
INSTALLATION DATE:	December 2019

TEST RESULT:

ESKOM used rubber for the same application in the past which would normally last 12 months. The Linashield is still in operation after 19 months of continuous operation

ADDITIONAL INFORMATION - LINASHIELD


OTHER APPLICATIONS:

Wear linings | Cyclones | Screens | Belts |
Conveyors | Dump truck linings | Wagons | Silos |
Chutes | Feeding channels | Magnetic separators |
Cones | Hoppers | Crushers | Sorters | Skips | Bins
| Slurry Channels....
and MANY more

TYPICAL INDUSTRIES:

- Mining
- Mineral processing plants
- Bulk material handling equipment
- Thermal power stations
- Transportation
- Agriculture (grain storage & handling)
- Food & Feed Processing
- Construction
- Aggregates
- Earth Moving Equipment

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Case Study conducted in partnership with

