

Case Study – K-Redi-Liner® Polyurethane

Kinder Australia Product:	<u>K-Redi-Liner® Polyurethane G83</u>
Product Category:	Flow & Anti-Wear Products
Location:	Victoria
Conveyed Materials:	Washed Sand, 400 to 600mm max. rock lump size
Belt Width:	500 – 600BW
Belt Speed Drop Height:	2 m / s 2-3 metres
Installation Date:	July 2024

CHALLENGE:

- *Frequent wear and tear on rubber lining, requiring replacement every 3-4 months.*
- *High maintenance costs and labour-intensive replacements.*
- *Frequent downtime caused by structural damage due to delayed replacements.*

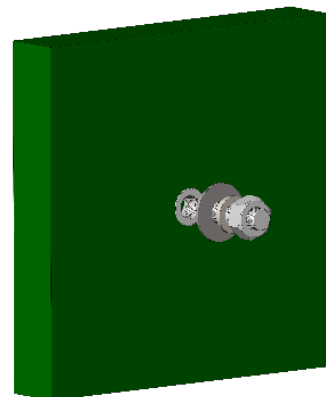
Our client has been a leader in quarrying and construction materials for nearly 80 years. In recent years, they have expanded their operations by acquiring two additional sand sites, securing 50 million tonnes of natural concrete sand reserves. This strategic growth ensures a reliable supply for the state's critical infrastructure projects.

The quarry operator faced ongoing maintenance challenges with the *Remaline 40 orange rubber lining* at the head discharge of their conveyor system. Handling washed sand with lump sizes between 450-600mm and a drop height of 2-3 metres, the rubber lining experienced rapid wear, requiring replacement every 3-4 months.

Frequent wear led to holes in the structure, causing additional downtime and labour costs. The maintenance burden was unsustainable, prompting the customer to seek a more durable and cost-effective solution.



After Photo / Video:
K-Redi-Liner® Polyurethane installed at the head discharge chute.



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SOLUTIONS:



K-Redi-Liner® Polyurethane

Following a routine conveyor health check and discussions about effective wear-resistant solutions, the customer trialled Kinder's **K-Redi-Liner® Polyurethane G83** within the plant's head chute. This choice was made based on the conveyed material's characteristics, which allowed for a polyurethane solution instead of a ceramic option.

K-Redi-Liner® Polyurethane G83 is engineered for high-impact and high-abrasion environments, offering superior resistance to wear compared to traditional rubber linings. It features a durable and flexible polyurethane composition that absorbs impact, reducing structural damage and prolonging service life. Additionally, its rotational capability allows for even wear distribution, further extending its usability.

Installation was simple and efficient, utilising a single-bolting technique and a 2 x 2 panel configuration in high-wear areas. The K-Redi-Liner® Polyurethane G83 was also lined throughout the lower chute for complete wear protection. K-Redi-Liner® Polyurethane panels are lightweight and manual-handling friendly, making installation even more seamless while minimising downtime.

RESULTS:

- Zero replacements and maintenance required since installation.
- Minimal wear even after 8 months of operation.
- Extended wear life of the head chute, eliminating costly downtime.
- Successfully implemented in four additional chutes across operations.

Since the installation in July 2024, the customer has experienced zero replacements and zero maintenance requirements. After 8 months of operation, K-Redi-Liner® Polyurethane G83 has shown minimal wear, significantly extended the wear life of the head chute and eliminated costly downtime.

Impressed with the product performance results, the quarry operator has now installed K-Redi-Liner® Polyurethane G83 in four additional chutes across their operations.

Maintenance teams have also praised the rotational feature of the liner, which maximises wear life and enhances operational efficiency.

"Previously, we had to replace the rubber lining every 3-4 months. Since installing the K-Redi-Liner® in July 2024, we haven't needed any replacements or maintenance. Even after 10 months, wear is minimal, and downtime has been eliminated."

