

CASE STUDY: K-Redi-Liner®

Product:	<u>K-Redi-Liner® KP Dual Duro</u>
Product Category:	Anti-Wear
Location:	Dromana, Victoria
Conveyed materials:	400mm granite rock
Chute dimensions:	Vertical drop of 2.5metres, impact angle 60 degrees from horizontal
Capacity/volume:	350 tph with a velocity of 1.8m/s
Installation date:	January 2013

Previous problem:



Above: photo of conveyor system showing chute and screen configuration.

Our customer has supplied granite products for over 80 years, producing 650,000 tonnes per annum, with a further 30 years of reserves planned for the site. They have won awards for quarry rehabilitation and openly share an environmental and educational focus within the local community.

To transport the conveyed granite rock for screening, our customer uses a chute system constructed out of steel, with 16mm thick bisalloy plate as the chute liner.

Due the weight of the rock and the drop height 2.5 metres, the chute experienced significant abrasion damage with the bisalloy plates offering a wear life of only 5 days before it routinely had to be replaced with further bisalloy “quick fix” plating patches.

This resulted in unsatisfactory labour costs, as well as lost production time due to frequent plant shutdowns for the repair work to be completed safely. This led our customer to search for a better impact wear liner solution.



<https://kinder.com.au>

Subject to © Kinder Australia Pty Ltd
Issue: 202102

Kinder Australia Pty Ltd

26 Canterbury Road, Braeside VIC 3195
PO Box 1026, Braeside VIC 3195

☎ +61 3 8587 9111
☎ +61 3 8587 9101

✉ conveyorsolutions@kinder.com.au
ABN: 28 006 489 238

CASE STUDY: K-Redi-Liner®

Resolution:

K-Redi-Liner® KP Dual Duro

Key Features:

- Ceramic cube thickness KP 38 x 38 x 32mm
- Standard panel 304L x 304W x 102D mm
- Available in custom sizes
- Dual Duro suspension formulas B93 / Y63
- 4 x ¾" BTNI fastening attachment
- For the heaviest applications
- Replace only what's needed instead of replacing the entire liner
- Quieter operation
- Lightweight compared to steel (OHS benefit)

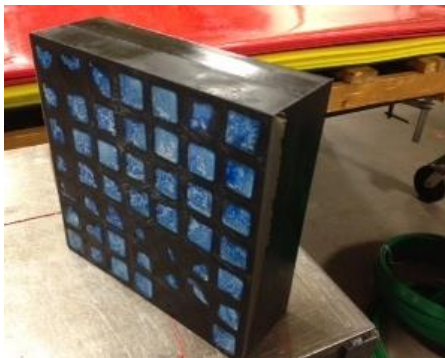


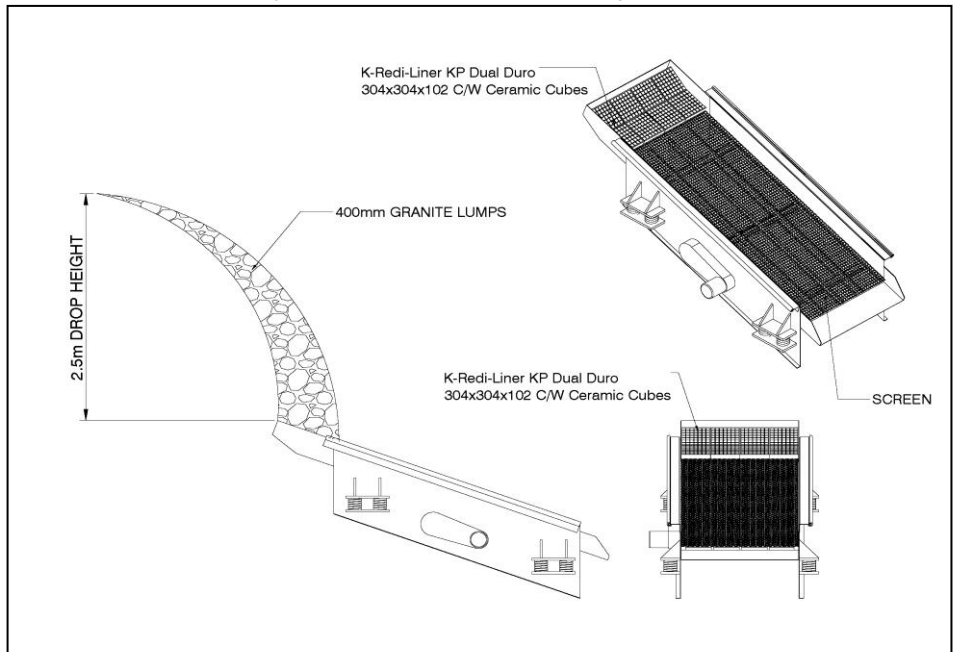
Photo of K-Redi-Liner® KP Dual Duro prior to installation: 304mm x 304mm x 102mm

38mm thick ceramic cube

63 Shore A bottom + 93 Shore A Duro top (51 + 51mm)

Weight = 19.5kg each

To resolve this problem, our customer favoured the features of K-Redi-Liner® because it was lightweight in comparison to the bisalloy patches and also only needed to be bolted into place and not welded. Overall it required less labour to install which was meant that replacement costs were reduced. However, the 16mm solid polyurethane panel lasted on 3 days before it needed replacing.



To address this specific angle chute, the 400mm rock size and the drop height from the conveyor to the chute prior to screening, Kinder Australia recommended trialling the newest edition to the K-Redi-Liner® range, incorporating ceramic cubes with dual durometer suspension formulas.

The wear life of the K-Redi-Liner® KP Dual Duro was significant, lasting 14 months before a replacement panel was required. The end result was a **significant reduction in replacement liner costs**, as well as a **significant reduction in costs associated with installation labour**. Our customer was delighted in the performance of the K-Redi-Liner® KP Dual Duro.



<https://kinder.com.au>

Subject to © Kinder Australia Pty Ltd
Issue: 202102

Kinder Australia Pty Ltd

26 Canterbury Road, Braeside VIC 3195
PO Box 1026, Braeside VIC 3195

☎ +61 3 8587 9111
📠 +61 3 8587 9101

✉ conveyorsolutions@kinder.com.au
ABN: 28 006 489 238