

CASE
STUDY

ARGONICS SHEETS

POLYURETHANE LINERS

PRODUCT:	Polyurethane Lining Sheet
PRODUCT CATEGORY:	Flow & Anti-Wear
LOCATION:	Pilbara Region, Western Australia
PRODUCT DESCRIPTION:	Solid polyurethane sheet, B93
CONVEYED MATERIALS:	6" (150mm) minus crushed iron ore
DROP:	Vertical drop of 2.5 meters
CAPACITY/VOLUME:	550 tons/hr
INSTALLATION DATE:	February 2015

PROBLEM DESCRIPTION:

The customer provides contract crushing and screening services to the mining industry around Australia.



To control the feed to their screen, the conveyed material is put through a Schenk Vibratory Feeder. However, due to the level of product build-up occurring on the existing Bisalloy plate chute lining (.78" (20mm) hardox 450), the customer had to stop the plant 3-4 times per shift to jack hammer the iron ore manually.

Also, given the impact from the 2.5 meter drop height and the sliding abrasion experienced in this particular materials handling environment, our customer had to replace the existing conventional chute lining every 12 weeks. As well as the cost of the replacement lining, the plant's crushing productivity was being compromised.



RESOLUTION:

To fix this problem, our Australian distributor suggested the use of our high performance polyurethane liners, specifying a B93 durometer hardness rating and 1 inch thickness to suit this environment's high levels of impact and sliding abrasion.

The customer found that the installation process for the liner was far less complicated than the Bisalloy plate as it required no welding. After counter sink-holes were made into the plain-backed polyurethane, the liner was simply and securely bolted into place. Also, because the polyurethane sheets are much lighter to lift than Bisalloy sheets, any manual labor safety risks were also reduced during the installation.

KEY BENEFITS:

- Longer lasting anti-wear protection
- Reduced material hang-up
- Greater tear resistance
- Light weight
- Simplified installation
- Significantly lower noise levels

The Argonics liners have now completely eliminated material build up inside the feeder chute, and so have stopped the need for any jack-hammering on site. The customer also observed that the liner provides 50% more wear life and so is very happy with their investment in the Argonics high performance polyurethane sheet liners. Overall, our customer is seeing major cost gains from switching to our liners.

