

# Duaplate® DX Weld Overlay

**Location** Pilbara Region, WA, Australia  
**Asset** Chute: Lower Section of Surge Bin  
**Conditions** Iron Ore Processing  
**Solution** Duaplate® DX Weld Overlay

## Results

- Lasts 2.5X longer than any other weld overlay (increased productivity and reduced costs.)
- 50% lighter reducing manual handling (improved safety)

Duaplate DX is a revolutionary weld overlay material engineered by Bradken to perform under the most extreme abrasive operating conditions. Duaplate DX is manufactured to our proprietary composition to create an incredible fine microstructure that provides a substantial improvement in the operational life over traditional chromium carbide based overlay.

## Implementation

Bradken's Duaplate DX was trialed in the lower section of a surge bin, installed in an iron ore mine in Western Australia's Pilbara region. The bin was compared to an identical chute lined with Duaplate D80.

## Trial Parameters

The DX chute was lined with 8mm overlay, whilst the D80 chute was lined with 9mm of overlay. The chutes were in service for 6 months and processed comparable material and tonnages. At the end of the 6-month trial period, the bins were removed from service and thickness testing was conducted to compare wear and impact performance between the two overlay materials.

## Results

Thickness testing data showed that similar locations were prone to high wear on both bins, however the DX material showed significantly less wear compared to the D80 material. In particular two areas were worn past the D80 overlay and through the mild steel fabrication. In the corresponding locations on the DX chute, there was still a minimum of 4mm of overlay, or 50% of the wear life remaining.

## Proven Benefits

Duaplate DX site trials showed that:

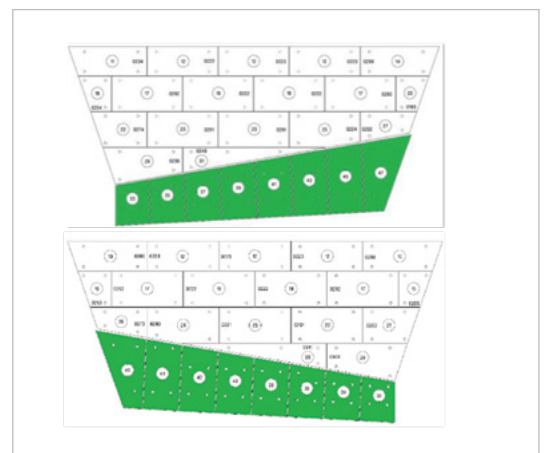
- Bradken's new Duaplate DX has up to 2.5 times longer wear life than Duaplate D80
- 8mm of Duaplate DX is equivalent to at least 17mm of Duaplate D80 in sliding abrasion conditions
- 50% reduction in liner mass; giving a significant reduction in manual handling risks, therefore improving safety concerns



>Duaplate® DX Vs Duaplate® D80 Hot Spot



Comparison of DX and D80



Location of Trial Liners



**Our Innovation. Your Advantage.**

