

### Duaplate® D80

#### Base Material

Duaplate is a clad plate manufactured by welding an abrasion resistant material to a steel base. The standard base material is mild steel; however, this can be changed to suit your operating environment.

#### Overlay Material

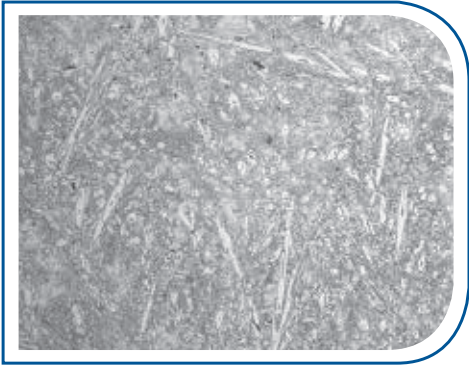
The D80 overlay material is a complex chromium carbide iron that is based on AS2576-2455. The microstructure of this material consists of primary  $M_7C_3$  carbides in a complex carbide austenite matrix. The toughness of the material is improved by the formation of nodular complex carbides leading to a reduction in the size of acicular  $M_7C_3$  type carbides and inter-carbide spacing.

#### Typical Properties

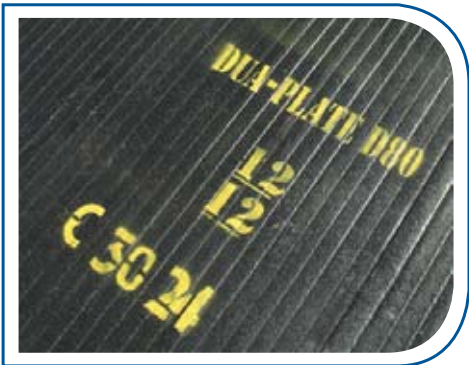
Bulk Hardness:	620 HV <sub>50</sub>
Typical Carbide Hardness:	1500 HV <sub>0.5</sub>
Volume Fraction Primary Carbides:	30%

#### Welding

The base material can be welded with standard mild steel or low hydrogen welding consumables with no pre-heating required. However, care should be taken to avoid contacting the overlay material.



D80 microstructure at 100x magnification



Duaplate D80 sheet ready for delivery



Truck bed lined with Duaplate D80 and Bradken Q&T

# BRADKEN

## PRODUCTS

### Duaplate® D80

#### Cutting, Forming and Fabrication

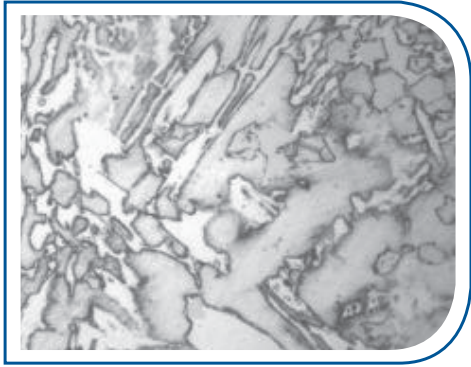
Plasma cutting is the recommended method for cutting Duaplate. It is preferable to cut Duaplate from the backing plate side to ensure a clean edge and to prevent carbide contamination. Duaplate can also be easily cold formed into almost any shape that mild steel can, by pinch rolls or hydraulic press brake.

The steel backing plate provides Duaplate with structural integrity, thus entire structures can be fabricated from Duaplate. Bradken has the capabilities to manufacture such structures or to supply cut and formed, ready-to-go wear liners.

#### Services & Applications

Duaplate D80 is suited for applications involving high abrasion and high impact. Typical uses include:

- Sizing Screens
- Ball mill liner plates
- Dump truck tray linings
- Deflector Screens
- Chute liners
- Bin & hopper liners
- Screw Feeders



D80 microstructure at 1000x magnification



Duaplate D80 chute



Screen house lined with Duaplate D80

**duaplate®**

For more information contact Bradken at [wpbsales@bradken.com.au](mailto:wpbsales@bradken.com.au)

3 BKM SP MKT  
Rev. 1  
Issue date – June 2008

170 Railway Parade Bassendean WA 6054 Australia  
T +61 8 9449 8300 F +61 8 9449 8334  
W [bradken.com.au](http://bradken.com.au)