

Vidaplate® V31

Base Material

Vidaplate is a clad plate manufactured by welding an abrasion resistant material to a steel base. The standard base material is an impact resistant mild steel. This can be changed to suit your operating environment.

Overlay Material

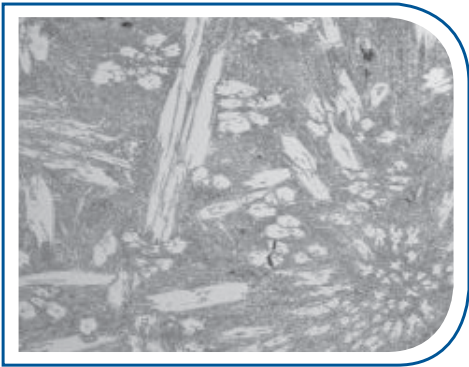
The V31 overlay material is an austenitic chromium carbide iron that is based on AS2576-2355. The microstructure consists of primary M_7C_3 carbides in a carbide austenite eutectic matrix. The high abrasion resistance is provided by the hard chromium carbides that protect the matrix from abrasive wear.

Typical Properties

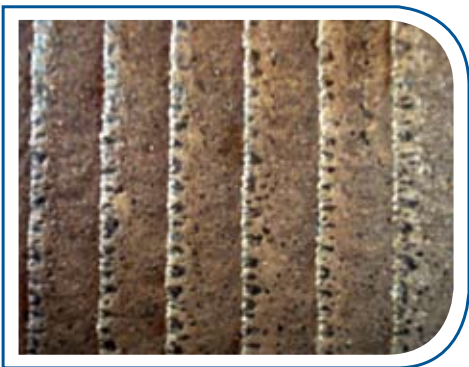
Bulk Hardness:	650 HV ₅₀
Carbide Hardness:	1500 HV _{0.5}
Volume Fraction Primary Carbides:	30%

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.



V31 microstructure at 100x magnification



Typical V31 finish



Vidaplate V31 lined dozer blade

Vidaplate® V31

Cutting, Forming and Fabrication

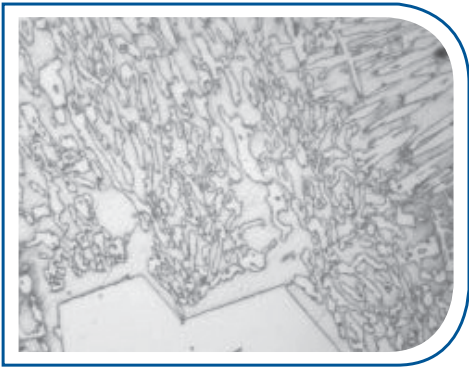
Plasma cutting is the recommended method for cutting Vidaplate. It is preferable to cut Vidaplate from the backing plate side to ensure a clean edge and to prevent carbide contamination. Vidaplate can also be easily cold formed into almost any shape that mild steel can, by pinch rolls or hydraulic press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

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

Services & Applications

Vidaplate V31 is suited for use in general wear applications involving high abrasion and medium impact. Typical uses include:

- Crusher main frame liners
- Grizzly bars
- Earth moving buckets liners
- Chute liners
- Bin and hopper liners
- Slurry pipes and bends,
- Sugar harvesting equipment.



V31 microstructure at 1000x magnification



Vidaplate V31 dredge pipe



Vidaplate V31 lined chute

Vidaplate®

For more information contact Bradken at wpbsales@bradken.com.au

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