



Applications:

IP800 is suited for applications experiencing high impact and abrasion.

Typical applications include:

- Dump Truck Tray Liners
- Chute Liners
- Deflectors
- Bin Liners

Specifications

IP800 Chromium Carbide Overlay Plate is manufactured based on the earlier Australian Standard AS/NZS 2576:1996 Gr 2455 specifications for hard facing alloys

and is compliant with the chemistry requirements of Group 2 Alloys, (Table 2.2) Type 24 alloy material.

Microstructure

IP800 Chromium Carbide Overlay Plate has a microstructure of between 15%-35% chromium-rich M_7C_3 primary carbides in a Carbide-Austenite Eutectic Matrix, with the possibility of MC carbides also being present in the top layer. The IP800 microstructure contains fine primary carbides due to the addition of grain refining elements.

Technical Notes:

Within the standard the grade designation, for example 2455, indicates the alloy type "24", and the hardness in Rockwell HRC "55". Therefore, a "55 HRC" grade must have a minimum of 55 HRC, and a maximum of 59 HRC as an average hardness, and 2460 must have an average hardness ranging between 60 to 64 HRC.

All hardness testing within our Metallurgical laboratory is performed on a Vickers Hardness tester, therefore, all HRC values are a conversion from HV50 to HRC.

Due to the nature of the welding process actual hardness and volume fraction of primary carbides can vary across and throughout a plate. The above properties are typical for all plates with an undiluted overlay.

Chemistry*			
	%C	%Cr	%Nb+Mo
Range (Top layer)	3.5 - 7.5	18 - 35	2min.
* - Mn & Si added as minor elements.			
Hardness			
	Vickers HV50	Rockwell HRC	
Typical Range (average)	620 - 690	55 - 59	
Backing Plate: AS/NZS 3678-250 (ASTM A36)			



Inter-plate IP800 AS/NZS 2576:1996 Austenitic Complex Chromium Carbide Overlay x 100 magnification