



PRODUCT DATA SHEET

TSA80 WELD OVERLAY

TSA80 is a high-quality abrasion resistant clad plate manufactured by multi pass open arc welding of a complex Chromium Carbide Alloy onto a mild steel substrate. TSA80 has improved impact properties and displays superior wear resistance over conventional low alloy overlays due to its ability to resist deformation from impact. The overlay alloy has a minimum of 30% chromium carbides by volume evenly dispersed in a eutectic matrix of retained austenite.

TSA80 overlay plate is distinguished by a wide and smooth weld bead with a clearly defined well-developed pattern of stress cracking. Liners manufactured from TSA80 have proven performance in the cement, mining and mineral processing industries consistently demonstrating superior wear resistance in moderate impact situations.

Specification to AS/NZS 2576 : Grade 2455

Typical Chemical Composition							Typical Hardness	
Carbon	Silicon	Manganese	Chromium	Niobium	Tungsten	Vanadium	Carbides	Matrix
3.5 – 4.5%	0.5 – 1.2%	0.6 – 2.0%	20 – 27%	*	*	*	1500HV	650HV

(*) Denotes combination of alloying elements Niobium, Tungsten, Vanadium, Titanium & Molybdenum.

- Proven consistent fusion between the overlay and mild steel substrate
- Can be formed using rollers or hydraulic press to achieve a desired radius
- Relatively smooth surface
- Pressed during manufacture to ensure flatness of the stock plate
- Consistent hardness and thickness throughout the stock plate
- Excellent abrasion resistance
- Increased impact properties

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Product Application

TSA80 overlay plate is a proven performer in industries such as Mining, Cement, Sugar, power generation, glass manufacture and Mineral Processing.

- Weld on skins for truck trays, excavators, loaders and dozers
- Studded Liners for chute, bin & hopper walls
- Studded Skirt Liners for conveyor systems
- Crusher wall liners

Services Available

Total Steel has a fully equipped workshop and can supply liners in any shape plasma cut to size. In addition to our cutting service Total steel can offer liners with welded on studs.

Size Range

Total Steel Part No	STOCK PLATE DIMENSIONS				Weight KGS	Stocked
	Length	Width	Overlay	Substrate		
	MM	MM	MM	MM		
TSA800606300220	3000	2200	6	6	622	Yes
TSA800910300220	3000	2200	9	10	982	Yes
TSA801712300220	3000	2200	17	12	1503	Yes
TSA802510300220	3000	2200	25	10	2310	Yes
TSA PLATE - CUSTOM		CONTACT YOUR LOCAL REPRESENTATIVE				

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