

CHROME CARBIDE OVERLAY PLATES



Smooth and Crack-free Overlay Plates

CS Wear developed a brand new chromium carbide welding plates with a **smooth surface, crack-free, and no visible welding beads**, which are made through a distinctive welding technology to apply a highly abrasive resistant chromium carbide on to a steel substrate producing consistent chemistry and microstructure with smooth overlay deposit, the smooth overlay deposit contains consistent chemistry and microstructure down to the fusion line. The uniform distribution of chromium-rich primary carbides, in a carbide-austenite eutectic matrix, produces a wear plate that obtains high abrasion resistance and excellent impact properties, the Smooth overlay normally has a 2 times wear property than conventional chrome carbide overlay plates, this product developed to meet customer's extra requirement for wear life when conventional overlay plates can not meet the severe working conditions or an application that needs a smooth wear surface.



Standard sizes

Material Grade	Thickness/Base+Wear(mm)	Standard sizes (mm)	Chemical Composition (%)	Application
M30	5+5 (5 on 5)	1000 x 3000	Cr 20-35%, C 2.5-5.0%, Mn<1.5% Si<1.2%, B<0.6% S< 0.033%, P<0.033% Nb+Mo+Ti+V+W<1.5% Hardness >670HV (60-64hre)	Combination of excellent wear resistance and medium impact resistance
	6+6 (6 on 6)	1000 x 3000		
	8+8 (8 on 8)	1000 x 3000		
	10+10 (10 on 10)	1000 x 3000		
	12+12 (12 on 12)	1000 x 3000		
	12+17 (17 on 12)	1000 x 3000		
	12+20 (20 on 12)	1000 x 3000		
M70	12+25 (25 on 12)	1000 x 3000	Cr 18-28%, C 2.5-5.0%, Mn<1.5% Si<1.2%, B<0.4% S< 0.033%, P<0.033% Nb+Mo+Ti+V+W: 7-10% Hardness >670HV (60-64hre)	Combination of excellent wear resistance and high impact resistance
	8+8 (8 on 8)	1000 x 3000		
	10+10 (10 on 10)	1000 x 3000		
	12+12 (12 on 12)	1000 x 3000		
	12+17 (17 on 12)	1000 x 3000		
	12+20 (20 on 12)	1000 x 3000		
	12+25 (25 on 12)	1000 x 3000		

Features:

- 1 Smooth surface, crack-free, no visible welding beads, low friction, excellent for reducing hang up or carry back
- 2 Plates are made by single pass overlay using carbide dispersion distribution technology, uniform microstructure and hardness equally distributed
- 3 2 times wear property than conventional overlay plate based on our experience
- 4 Depth of fusion dilution: around 0.5mm, very low overlay dilution with backing plate
- 5 Primary carbide volume: >37%
- 6 Flatness: ±2.5mm per 1.5 linear meters
- 7 Operating temperature < 600°C
- 8 1200x3000mm also available upon request, plates can be cut into other sizes/shapes upon request, studs and holes can be added or machined