



DURAPLATE® HiSPEED

DURAPLATE HI-SPEED is a composite overlay plate with a smooth surface and low cracking tendency. The overlay consists of a "Dual" nature, comprising 30 to 40% chrome carbides in a eutectic matrix with a hardness ranging from 59 to 62HRC, and the hard phases are between 1200 and 1800HV.

It withstands severe abrasion up to temperatures of 500°C.

Main applications Overlay plates, baffles, screens, sliding plates, bucket bottoms

Hardness Primary chrome carbides ranging from 1200 to 1800 HV

Mechanical properties
Typical value s355

The overlay plate itself does not have specific mechanical characteristics, but the base metal onto which it is welded should have suitable properties. Suitable base metals include S235, S355, HLE, Stainless Steel, and DURSTEEL 410.
Rp 0.2 : 355 Mpa
Rm : 510 MPa
A% : 22

Chemical composition
Typical value

C (Max %)	Cr (Max %)	Mn (Max %)	Mo (Max %)	Ti (Max %)	B (Max %)
2-5	18-35	< 1.5	< 1.5	< 1.5	< 1.5

Thicknesses Surface area: 3000x1000 = 3.0 m²
The indicated dimensions represent the fully overlaid portion.

Epaisseurs Standard : 5+5, 6+6, 6+7, 8+8, 10+10, 12+12



Specificity

Wear-resistant sheet composed of a structural steel sheet S235 and a wear-resistant coating applied by an advanced welding process.

This process allows obtaining a completely smooth wear-resistant coating, without residual stress, and with a low friction coefficient.

The overlay is applied in a single pass, avoiding mineral and gas inclusions.

The absence of overlay beads allows for multidirectional wear-resistant properties.

Very low dilution within the thickness, resulting in uniform hardness and consistent wear resistance throughout the sheet's lifespan.

Fissures are very fine and do not penetrate the base metal. 100% of the sheet can be utilized. The average rejection rate is 10% compared to 30% for other sheets on the market.

Implementation

Plasma cutting with standard parameters.

Bending and rolling: The overlay should always be on the inside of the bend to avoid tension cracking in the case of bending on the outside of the radius.

Minimum rolling radius: 15 times the thickness of the sheet with the overlay on the inside of the radius.

Weldability

Assembly with our CORINOX 307 wire for root passes, followed by final passes with our EASYCOR 70M wire. Weld protection using our DURCOR31WO wire.