



DURAPLATE® D45T

DURAPLATE D45T is a drawn cord overlay plate made from chrome carbides, with a hardness ranging from 62 to 64 HRC and hard phases ranging between 1300 and 2800 HV.

It withstands very severe abrasion up to temperatures of 700°C.

Main applications Shields, casings, cyclones, separators, screens, fans, pipelines, tunnel boring machines, augers, pick blades, and all fabricated parts.

Hardness Primary chrome carbides from 1300 to 1650 HV. Niobium carbides at 2400 HV and Vanadium carbides at 2800 HV.

Molybdenum and tungsten are added to ensure the matrix's behavior at high temperatures.

Mechanical Properties
Typical Values, S355 The overlay itself does not possess specific mechanical properties, but the support on which it is welded exhibits suitable characteristics. The supporting metal can be S235, S355, HLE, Stainless Steel, or DURSTEEL 410, with the following mechanical properties:

Rp 0.2 (Yield Strength): 355 MPa
Rm (Tensile Strength): 510 MPa
A% (Elongation): 22%

Chemical Composition

Typical value

C (Max %)	Cr (Max %)	Mn (Max %)	Mo (Max %)	Si (Max %)	Nb (Max %)	V (Max %)	W (Max %)
5.5	22	0.5	3	1	6	0.6	1

Dimensions Format L: 3000x1500 with a usable surface of 2900x1400 = 4.06m²
Format XL: 3000x2000 with a usable surface of 2900x1900 = 5.51m²

The provided dimensions represent the completely recharged part. Custom sizes are available upon request. Maximum format: 6000x2000.

Thicknesses Standard : 5+3, 6+4, 8+5, 12+8, 10+10

Custom: Base plate thickness: min 3mm / max 30mm - Overlay thickness: min 3mm / max 12mm



Specificity

The plates made from drawn cords exhibit unique characteristics in the market. Hardness, chemical composition, and microstructure are consistent throughout the entire plate.

They can be placed in any orientation without concerns about differences in behavior. The cracks are very fine and do not penetrate the base metal. It is possible to utilize 100% of the plate.

The average rejection rate is 10%, compared to 30% for other plates in the market.

Implementation

DURAPLATE D45T has excellent roll forming, crimping, and bending capabilities. Bending is possible, although it is recommended to use welded fabrication for the plates.

Roll forming with a diameter of 300mm is achievable with overlay on the inside or outside.

Weldability

Assembly with our EASYCOR 70M or CORINOX 307 wire and weld protection using our DURCOR45W0 wire.

For all applications requiring an extremely lightweight overlay plate with unparalleled abrasion resistance, we recommend using our HARDLITE overlay plate (refer to the technical datasheet on our website www.wa-produr.com).