



## DURSTEEL® 510

**DURSTEEL 510** is a wear resistant hardened steel featuring a nominal hardness of 500 HB.

It resists to severe wear conditions and its high limit of elasticity allows it to absorb significant impacts without deformation.

### Main applications

Armouring, wear blades, buckets, gondola cars, hoppers, chutes, hammers, cutter blades, skips, bulldozers, worm screws, screens, grippers, etc.

### Hardness

470-530 HB

### Chemical composition

Typical values  
Thickness 20 mm

Rp 0.2 : 1300 MPa  
Rm : 1600 MPa  
A% : 8

### Resilience

Typical values  
Thickness 20 mm

Impact energy 30j at -40°C

### Chemical composition

Typical values

Ep. (mm)	C (Max %)	Si (Max %)	Mn (Max %)	P (Max %)	S (Max %)	Cr (Max %)	Ni (Max %)	Mo (Max %)	B (Max %)
3-20	0.3	0.8	1.65	0.025	0.015	1.5	1	0.5	0.005
20-40	0.3	0.8	1.65	0.025	0.015	1.5	1	0.5	0.005

### CEV

Valeur Typique

Ep. (mm)	CEV	CET
3-20	0.58	0.4
20-40	0.62	0.43

### Dimensions

Available in coils: From 3 to 6 mm  
Available in Quarto: From 6 to 50 mm (60 to 80 mm on request)

**Tolerances**

Compliant with EN 10 029 for QUARTO sheets and 10 051 for coils  
 – Shape, length and thickness tolerances. Class A  
 – Flatness tolerances as per Class N.

**Surface condition**

Compliant with EN 10 163-2  
 – Surface requirements as per Class A.

**Implementation**

DURSTEEL 510 has an excellent capacity for rolling, stretching and bending. However, specific precautions are required during implementation.

DURSTEEL 510 maintains its properties up to a temperature of 250°C.

The use of DURSTEEL 510 for heat treatments or hot galvanising is not recommended.

For all applications of abrasion-resistant steel at higher temperatures, we recommend using our Creusabro steels (see datasheets on our website [www.wa-produr.com](http://www.wa-produr.com)).

**Weldability**

DURSTEEL 510 is a hardened steel with a higher carbon equivalent that limits its metallurgic weldability. Strict compliance with preheating temperatures is necessary for the success of the assembly.

Preheating temperature and recommended minimum inter-pass temperatures based on thickness in millimeters:

0-8 mm	10-15 mm	15-30 mm	30-80 mm
	125°	175°	200°

The recommended WA PRODUR filler metals for welding DURSTEEL 510 are as follows:

EASYCOR 70M : Copper tubular cored wire without slag for horizontal butt welding

EASYCOR 700M : Copper tubular cored wire with high limit of elasticity for horizontal butt welding

CORINOX 307G : Stainless steel cored wire for heterogeneous assembly

CORINOX 312G : Stainless steel cored wire with high mechanical properties for heterogeneous assembly

All technical data sheets for the wires in the WA PRODUR range are available on our website: [www.wa-produr.com](http://www.wa-produr.com).