Creusabro®

CREUSABRO ® 6400

Creusabro® 6400 has been developed to meet all situation where improved wear resistance is required compared to classical 450/ 500 HB martensitic plates, without compromise on toughness, formability and easy processability in the workshop.

Hardness	460 HB (After TRIP effect : 530 HB) Guarantee (425 HB – 490 HB)
Mechanical properties Typical value, th.90mm	Rp 0.2 : 1000 MPa Rm : 1450 MPa A% : 12
Resilience Typical value	Impact energy 40J à -20°C Guarantee 27J at -20°C (th. < 30mm)

Chemical composition

typical value

C (Max %)	S (Max %)	P (Max %)	Mn (Max %)	Ni (Max %)	Cr (Max %)	Mo (Max %)
≤ 0.22	≤ 0.003	≤ 0.02	≤ 4.2	≤ 0.25	≤ 0.25	≤ 0.2

Metallurgical concept

Besides the 4800 and 8000 grades, Creusabro® 6400 is genuinely different than classical low alloyed martensitic abrasion resistant plates.

The original chemical composition and the soft quenching rates used in the mill fabrication process develop a uniform through-hardened plate having a multiphase microstructure with retained austenite.

This unique metallurgical combination enhances the capacity of surface exposed to wear to increase its hardness up to +70 HB under the action of local plastic deformations caused by impact with rocks or pressure by the abrasive particles. This is known as TRIP–effect (Transformation Induced Plasticity).

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PRODUR ENGINEERED BY WELDING ALLOYS

Creusabro®

Delivery conditions

Thickness (mm)	Min Width (mm)	Max Width	Min Length (mm)	Max Length (mm)	Weight unit (t)
5	1200	2000	4000	13000	12.5
6-8		2500			
9-11		3100			
12-24		3800		14000	
25-40		3800			
41-100	1500	3000	3000	10 000	20

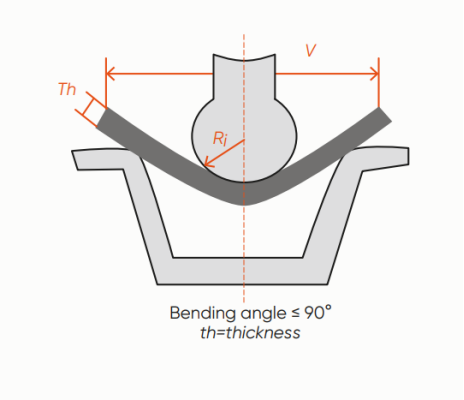
Creusabro® 6400 is supplied in the “as-quenched” condition.

The plates are produced by low CO2 process in Belgium and France from electric arc furnace, ladle refining and vacuum degassing.

The use of scrap recycling and medium manganese content instead of expensive alloying elements such as molybdenum or nickel contribute to reducing the consumption of energy and critical raw materials.

Bending

For plates up to t = 20 mm, recommended minimum bending radius and die opening are summarized in the following table..



	Min Internal bending radius	Min die opening
Perpendicular to the plate rolling direction	3.25 th	12 th
Parallel to the plate rolling direction	3.5 th	14 th