YRON 500®

Alloyed wear-resistant steel 500 HB

Yron® 500 is a quenched steel with high Mn/Cr/Ni alloy content, providing high hardness, good processability and superior toughness compared to traditional wear-resistant steels.
Yron® 500 is particularly suited for extreme combined wear applications:

- Sliding / Abrasion
- Impact / Abrasion
- Abrasion / Temperature

CHEMICAL COMPOSITION

Mass composition in % (max)

C	Mn	Ni	Cr	Mo
0.23	4.5	0.26	0.025	0.015

MECHANICAL PROPERTIES

(Typical values in delivery condition)

Hardness at ambient temperature: 460 HBW (430–500)

Yield strength (Rp 0.2): 1000 MPa

Tensile strength (Rm): 1450 MPa

Elongation (A%): 12

Impact toughness (typical values in J): 50 J at -20°C

DIMENSIONS & THICKNESS

From 5 to 25 mm, plate dimensions on request.

PROCESSING

Yron® 500 retains its mechanical properties up to 250 °C.

Its enriched metallurgy limits tempering effects (hardness loss) beyond this threshold, ensuring improved high-temperature performance.

Recommended welding: use our FCW 307 or FCW 312 cored wires, or our SE 307 or SE 312 covered electrodes.

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