

# ABRA-STEEL 450®

## Wear-Resistant Steel 450 HB

ABRA-STEEL 450® is a hardened steel designed to withstand abrasion, with a hardness of 450 HB. It has been selected by our experts for its high abrasion resistance, as well as its excellent forming and welding properties.

### PROPERTIES & APPLICATIONS

Its wear resistance provides excellent abrasion protection, while its high yield strength allows it to absorb significant impacts without deformation or rupture.

ABRA-STEEL 450® plates are used in various industries where abrasion is a major operational challenge.

**Main applications :** *Crushers and conveying systems, blades, wear shells, chutes, troughs, transport/grinding screws, knives, cutting edges, hoppers, tanks, crushing equipment, and more.*

### CHEMICAL COMPOSITION

**Mass composition in % (max):**

C	Si	Mn	P	S	Mo	Ni	Cr	V	Nb	B
0.2	0.7	1.7	0.025	0.015	0.5	0.5	1.5	0.08	0.05	0.005

### MECHANICAL PROPERTIES

**(Typical values at delivery state):**

**Hardness at ambient temperature :** 420 - 470 HB

**Yield strength (Rp 0.2) :** 1250 MPa

**Tensile strength (Rm) :** 1400 MPa

**Elongation (A%) :** 10

**Toughness (typical values in J) :** 45 at -40°C

### DIMENSIONS & THICKNESSES

From **4 to 40 mm**, plate dimensions as per request.

### APPLICATION

This steel has excellent rolling and bending properties, while maintaining its characteristics up to a service temperature of 250°C.

Performance may be affected by excessive heating, so thermal treatment is not recommended.

**Recommended welding:** Use our FCW 307 or FCW 312 cored wires, or our SE 307 or SE 312 coated electrodes.