

# Data Sheet

## WEAR RESISTANT PLATE A450

### SPECIFICATION

- NSSMC ABRES 450(Primary Supplier)
- Bisalloy—BIS 450
- JFE- EH450
- SSAB - HARDOX 450
- Ford Steel—Wearalloy 450

### PRODUCT DESCRIPTION

- A through hardened, abrasion resistant steel plate, offering long life expectancy in high impact abrasion applications.

### SPECIAL NOTE

- Not suitable for use in structural applications

### SUPPLY CONDITIONS

- Thickness Range 5mm—100mm

### TYPICAL USES

- Dump truck wear liners
- Cyclones
- Screw conveyers
- Deflector plates
- Chutes
- Ground engaging tools
- Storage bins
- Cutting edges
- Earthmoving buckets

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### CHEMICAL COMPOSITION

Element	Maximum- Values differ depending on mill	Typical %/ Thickness (mm)
		5mm—100mm
Carbon	0.25	0.16
Silicon	0.07	0.40
Manganese	2.00	1.10
Phosphorus	0.025	0.013
Sulphur	0.010	0.003
Chromium	1.20	0.80
Titanium	0.020	0.010
Boron	0.005	0.0015
CEQ (IIW)	-	0.35

### MECHANICAL PROPERTIES

Typical Properties (Transverse)		Thickness Range (mm)
		5mm—100mm
Guaranteed Min.	Yield Strength (MPa)	Not guaranteed
	Tensile Strength (MPa)	Not guaranteed
Typical	Yield Strength (MPa)	1150
	Tensile Strength (MPa)	1460
	Elong. On 5.65 / So (%)	12

### HARDNESS

Specification	410-490HB
Typical	450HB

### FABRICATION

Wear Resistant Plate A450 is a medium carbon, high hardness, abrasion resistant steel. With appropriate attention to heat input, preheat and consumable selections, Wear Resistant Plate A450 can be successfully welded to itself and a range of other steels by conventional techniques.

Because of its high hardness, cold forming of Wear Resistant Plate A450 is difficult, requiring higher bending and forming forces, and greater allowances must be made for spring back.

If heating is necessary, this should not exceed 200c otherwise mechanical properties might be affected.

For further details on fabrication please contact LaserTek office.

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