

BISALLOY® WEAR 450 STEEL

Introduction

BISALLOY® WEAR 450 steel may be considered the 'all-rounder' of Bisalloy Steels' wear grades range. With a nominal hardness of 450 HBW but formulated to be readily usable and easily bent, formed, welded, cut and drilled, BISALLOY® WEAR 450 steel is ideal not only for components encountering wear but also structures subject to wear such as tipper truck trailers, rubbish skip bins and concrete agitators.

Applications

On request, Bisalloy Steels can offer impact guarantees for BISALLOY® WEAR 450 steel.

Other applications for BISALLOY® WEAR 450 steel include:

- Drag Line Buckets
- Dump Truck Wear Liners
- Liner Plates
- Chutes
- Storage Bins
- Earthmoving Buckets
- Deflector Plates
- Ground Engaging Tools
- Cutting Edges

Mechanical properties

Properties	Specification	Typical
0.2% Proof Stress	-	1150 MPa
Tensile Strength	-	1400 MPa
Elongation in 50 mm G.L.	-	12%
Charpy Impact (Longitudinal) -40°C (10 mm x 10 mm)	-	30 J
Hardness	425 - 475 HB	450 HB

Chemical composition

Thickness (mm)	Weight %	C	P	Mn	Si	S	Ni	Cr	Mo	B	CE(IIW)*	CET*
6 - 20	Maximum	0.23	0.025	1.00	0.60	0.008	0.35	1.00	0.25	0.002	0.46	0.30
25 - 50	Maximum	0.25	0.025	1.20	0.60	0.008	0.35	1.20	0.35	0.002	0.58	0.36
>50 - 100	Maximum	0.30	0.025	0.6	0.35	0.008	0.35	1.50	0.50	0.002	0.62	0.40

*Typical average

PLEASE NOTE: Every care has been taken to ensure the accuracy of information contained in this manual which supersedes earlier publications, however Bisalloy Steels shall not be liable for any loss or damage whatsoever caused from the application of such information. Typical values are provided for reference information only and no guarantee is given that a specific plate will provide these properties. Information is subject to change without notice. **Published February 2021**