# PRODUCT **DATA SHEET**

Bisalloy WEAR

# BISALLOY® WEAR 450 PLUS

## Introduction

BISALLOY® WEAR 450 PLUS is a new product with improved impact toughness and through hardness developed recently at Bisalloy. It has excellent abrasion-resistance with guaranteed impact toughness, good weldability and formability.

## Applications

Being through hardened with a nominal hardness of 450 HBW, BISALLOY® Wear 450 PLUS has been developed for highly demanding applications and can offer an increased life expectancy in sliding and gouging abrasion situations.

BISALLOY® Wear 450 PLUS is best suited to applications such as:

- Dump Truck Liners/Bodies
- Mining Buckets
- Cutting Edges
- Wear Liners
- Chutes
- Earthmoving Equipment
- Underground miners
- Long Wall

## Mechanical properties

| Properties | | Specification | Typical* |
|---|---|---|---|
| 0.2% Proof Stress | | – | 1150 MPa |
| Tensile Strength | | – | 1400 MPa |
| Elongation in 50 mm G.L. | | - | 12% |
| Charpy Impact (Transverse)<br>-40°C (10mm x 10mm) | | 27 J | - |
| Hardness | 8 - 40 mm | 425 - 475 HB | 450 HB |
| | > 40 - 100 mm** | 420 - 475 HB** | |

* Typical values are provided for reference information only and no guarantee is given that a specific plate will provide these properties.

**Minimum core hardness is 90% of the guaranteed minimum surface hardness

## Chemical Composition

| Thickness (mm) | Weight % | C | P | Mn | Si | S | Ni | Cr | Mo | B | CE(IIW)* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 - 20 | Maximum | 0.22 | 0.025 | 0.80 | 0.60 | 0.008 | 1.00 | 1.00 | 0.30 | 0.005 | 0.49 |
| 25 - 40 | Maximum | 0.22 | 0.025 | 1.00 | 0.60 | 0.008 | 1.50 | 1.30 | 0.40 | 0.005 | 0.62 |
| >40 - 100 | Maximum | 0.23 | 0.025 | 1.30 | 0.60 | 0.008 | 1.50 | 1.50 | 0.50 | 0.005 | 0.73 |

*Typical average

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