

WA Integra™

Composite wear plates: **Hardplate™**

Hardlite™

Tuffplate™



ACTING GLOBAL
WELDING LOCAL

Composite wear plates

More resistant than quenched and tempered abrasion-resistant steel plates

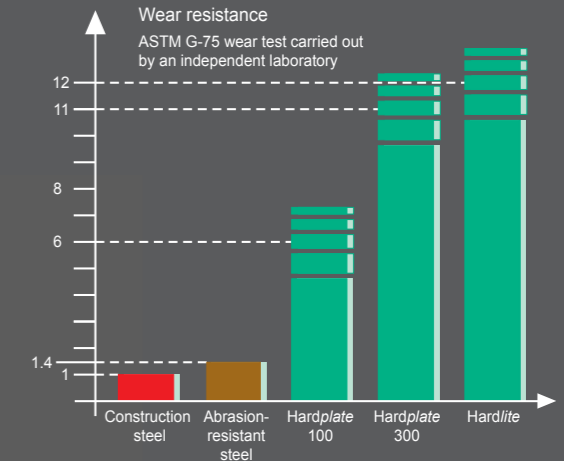
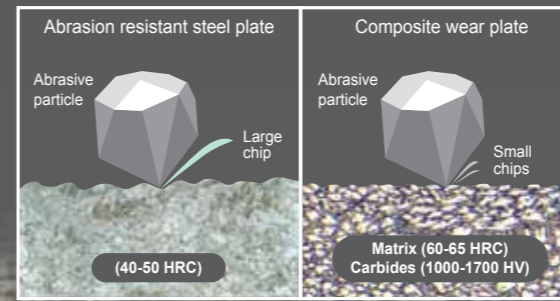
Welding Alloys' range of wear plates comprise a base plate of construction steel and a wear resistant coating applied by arc welding. Produced using specially developed Welding Alloys cored wires, they are distinguished by their:-

- Homogeneity of the deposit
- Regular appearance
- High quality consistency – guaranteed by the use of advanced automatic welding equipment designed and manufactured in our workshops
- Functionality and Adaptability

Additionally:

Hardplate™, Hardlite™ and Tuffplate™ are available in standard dimensions or made to measure, in the widest available range of thickness. Their dense metallurgical structure offers exceptional resistance to abrasive wear.

Comparative wear test



Hardplate™

Heavy duty composite wear plates

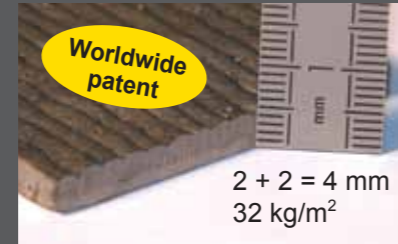
- Base metal and coating thicknesses selected according to the application
- Choice of several coating types
- Preferred solution for maintenance



Hardlite™

Ultra-thin composite wear plates - less than 5 mm

- Specially adapted for applications where weight is restricted
- More adaptable, lighter and harder
- Advantageous for moving parts



Tuffplate™

Impact resistant wear plates

- Designed for applications susceptible to a combination of wear and impact
- Ideal solution for material transfer and transportation areas



Coating types

Hardplate 100	Hardplate 300	Hardplate 600	Hardlite	Tuffplate
Chromium carbides Excellent wear resistance Optimum solution for most applications	Chromium + niobium carbides Superior wear resistance For severe conditions of service up to 300C	Complex carbides Superior wear resistance Keeps its outstanding properties up to 600C	Refined microstructure with high volume of chromium carbides Extremely high wear resistance	Finely dispersed carbides within a tool steel matrix. Ideal for areas with a combination of abrasion, pressure and impact
Fair corrosion resistance - Designed to withstand moderate impact				
Hardness 60-62 HRC	Hardness 61-63 HRC	Hardness 62-64 HRC	Hardness 68 HRC	Hardness 56-58 HRC

Standard dimensions

Type	Standard size
Hardplate	1500 x 3000 mm (L) 2000 x 3000 mm (XL)
Hardlite	1000 x 2000 mm
Tuffplate	1500 x 3000 mm (L)

Standard thicknesses

Type	Base plate	Coating
Hardplate	5 to 15 mm	3 to 15 mm
Hardlite	2 or 3 mm	2 or 3 mm
Tuffplate	5 to 15 mm	3 to 15 mm

Other sizes available on request

Technical and application data sheets on request.

Customised coated specifications available e.g. wear-resistant, stainless or heat-resistant steels.

Principal industries

- Steelmaking
- Cement
- Mines
- Quarries
- Public works
- Glassmaking
- Brickmaking
- Recycling
- Agriculture
- Dredging
- Thermal power stations
- Waste incinerators

Examples of applications

- Hoppers
- Chutes
- Buckets
- Pipework
- Elbows
- Armouring
- Screen
- Fans
- Cyclones
- Conveyors
- Classifiers
- Mixers

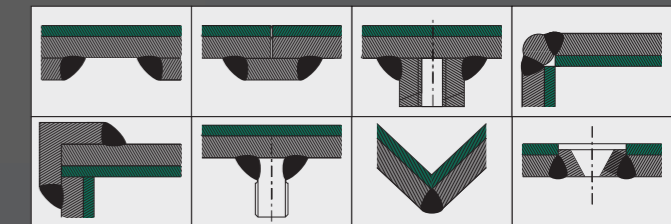
Adaptability

- Cutting - Rolling - Bending
- Numerous fixing and assembling possibilities: welding, bolting, etc.

Welding and cutting processes do not affect the wear properties of Hardplate, Hardlite and Tuffplate.



Examples of fixing



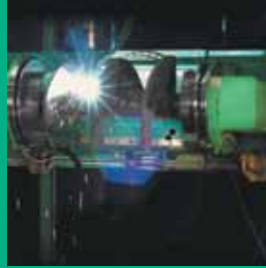
WA Integra: 3 types of service

- Supply of wear plate for reworking
- Supply of pieces prepared to specification and ready for assembly
- Construction of assembly in our workshops or turn key projects on site

A perfectly controlled technology



WA Cored Wires™
Design and manufacture
of all types of cored
welding wires



WA MultiSurfacer™
Design and manufacture
of automated welding
equipment for hardfacing
and rebuilding applications



WA Integra™ Services
Innovative hardfacing
and rebuilding solutions
by welding

A worldwide presence

United Kingdom
(Head office)
Welding Alloys Ltd

Argentina
Welding Alloys Argentina S.A.

Australia (Trading Partner)
Specialised Welding
Products Pty Ltd

Brazil
Welding Alloys Brasil Ltda

China
Welding Alloys China Ltd

Egypt
Welding Alloys Egypt

France
Welding Alloys France SAS

Germany
Welding Alloys Deutschland
Legierungstechnik GmbH
Welding Alloys Deutschland
Schweisslegierungen GmbH

Greece
Welding Alloys Hellas EPE

India
Welding Alloys
South Asia Pvt Ltd

Iran
Aliaj Joosh Iran

Italy
Welding Alloys Italiana s.r.l.

Japan
Welding Alloys Japan

Malaysia
Welding Alloys
(Far East) Sdn. Bhd.

Mexico
Welding Alloys
Panamericana S.A. de C.V.

Poland
Welding Alloys Polska Sp. z o.o.

Russia
Welding Alloys Russia

South Africa
WASA (PTY) Ltd

South Korea
Welding Alloys Korea Ltd

Spain
Welding Alloys España

Sweden
Welding Alloys Sweden

Thailand
Welding Alloys (Thailand) Co. Ltd

Turkey
Welding Alloys Limited Şirketi

Ukraine
Welding Alloys Ukraine

United Arab Emirates
Welding Alloys Middle East FZC

USA
Welding Alloys (USA) Inc.

Vietnam
Welding Alloys Vietnam Co. Ltd.

www.welding-alloys.com

