

**SSAB**

# Welding consumables for Hardox<sup>®</sup> wear plate



**MADE TO  
MATCH**

Our premium welding products are developed specifically to increase performance when welding Hardox<sup>®</sup> wear plate.

# Optimizing the Hardox® wear plate welding system

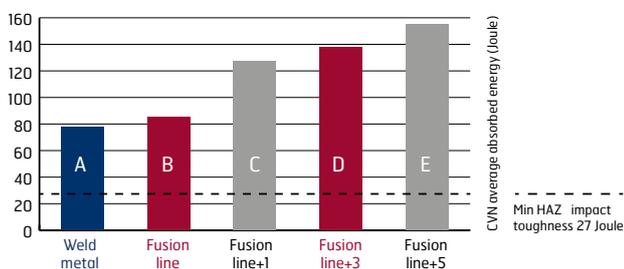
Hardox® wear plate is known for its great weldability. Nevertheless, if you care for superior productivity and high quality, it is important to choose the right filler metal.

Our premium welding products are made to match the excellent performance of Hardox® wear plate. Using these welding consumables will reduce the risk of hydrogen cracks and make you more productive. To further help you optimize weld and Heat Affected Zone (HAZ) properties, SSAB can support you with recommendations on welding machine settings, temperatures, heat input as well as risk analysis through SSAB WeldCalc (available in App Store and Google Play).

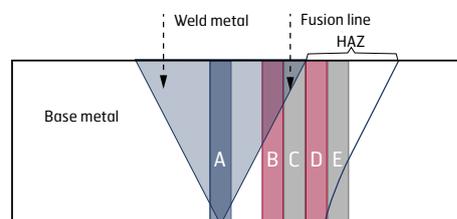
SSAB's welding products are available as low alloyed consumables and stainless consumables for MAG and MMA. They're all made to match Hardox® wear plate, but are also suitable for welding other materials such as mild steel. For the combination of Hardox® wear plate and our consumables SSAB has performed Charpy impact tests that demonstrate welds with superior toughness (see example below).

## Impact toughness across a welded joint

Charpy impact tests performed by SSAB; base metal 25 mm Hardox® 450, filler Metal cored wire for Hardox® wear plate



## Position of tests across the welded joint



# Welding consumables for Hardox® wear plate

Premium quality welding consumables with low hydrogen content, designed for joining Hardox® wear plate.



## Stick electrode for Hardox® wear plate

**Welding method:** MMA

**Characteristics:** A great choice when welding Hardox® wear plate off-site since its low moisture pick-up in high-humidity conditions helps prevent hydrogen cracking. Exceptional weldability.

**Available thicknesses:** 2.5 mm, 3.2 mm, 4.0 mm

## Stainless steel stick electrode for Hardox® wear plate

**Welding method:** MMA

**Characteristics:** Suitable for tough conditions due to the very high resistance to hydrogen cracks. Preheating is not necessary when welding Hardox® wear plate (except for Hardox® 600 and Hardox® Extreme).

**Available thicknesses:** 2.5 mm, 3.2 mm, 4.0 mm



## Solid wire for Hardox® wear plate

**Welding method:** MAG

**Characteristics:** Carefully controlled chemistry and a continuous copper layer to guarantee consistently high mechanical properties of the weld and arc stability with low spatter.

**Available thicknesses:** 0.8 mm, 1.0 mm, 1.2 mm, 1.6 mm

**Bulk size:** 1.0 mm, 1.2 mm

## Stainless steel solid wire for Hardox® wear plate

**Welding method:** MAG

**Characteristics:** The high manganese content of this chromiumnickel-manganese wire offers very high resistance to hydrogen cracks, therefore preheating is not necessary when welding Hardox® wear plate (except for Hardox® 600 and Hardox® Extreme).

**Available thicknesses:** 0.8 mm, 1.0 mm, 1.2 mm **Bulk size:** 1.0 mm, 1.2 mm

## Flux cored wire for Hardox® wear plate

**Welding method:** FCAW

**Characteristics:** An exceptionally productive wire with carefully controlled chemistry for all position welding, including vertical down.

**Available thicknesses:** 1.2 mm, 1.6 mm **Bulk size:** 1.2 mm

## Metal cored wire for Hardox® wear plate

**Welding method:** MCAW

**Characteristics:** For rapid welding in the flat and horizontal positions. Excellent weld appearance and low splatter due to stable arc action at all current levels.

**Available thicknesses:** 1.2 mm, 1.6 mm **Bulk size:** 1.2 mm

Contact your local sales representative for more information.

## There are several reasons why SSAB has initiated technical partnerships to develop workshop tools and consumables

### Knowledge

In SSAB we have substantial knowledge in working with high-strength steel. By offering the whole solution we can give even better customer support by putting our knowledge to best possible use.

### Productivity

High productivity and good quality is essential to being profitable when using high-strength steel. Having easy access to tools and consumables that are matched to our steels is bound to increase productivity.

### Development

To utilize the full potential of Hardox® wear plate, we have initiated technical partnerships to develop matching workshop tools and consumables. By working together with high-quality partners, we ensure our customers can utilize the full benefits of high-strength steel.

SSAB is a Nordic and US-based steel company. SSAB offers value added products and services developed in close cooperation with its customers to create a stronger, lighter and more sustainable world. SSAB has employees in over 50 countries. SSAB has production facilities in Sweden, Finland and the US. SSAB is listed on Nasdaq Stockholm and has a secondary listing on Nasdaq Helsinki. [www.ssab.com](http://www.ssab.com)

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