

## BWB WEAR PROTECTION



More than 10 times longer life than Hard facing

Thin - does not impede penetration

Lightweight - does not add as much weight to bucket

600 Brinell Hardness

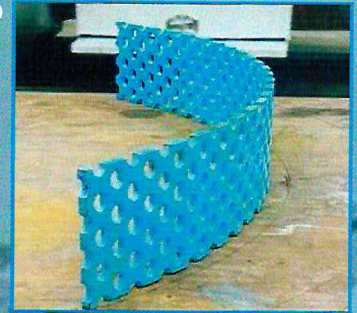
Holes in the BWB work well for dead panning material

Faster & Cheaper than Hard facing



# Why choose BWB to protect your bucket?

- Lasts more than 10 times longer than hard facing
- 600 Brinell Hardness
- Holes in the BWB work well for dead panning material
- Thin - does not impede penetration
- Lightweight - does not add as much weight to bucket
- Faster & Cheaper than Hard facing



Guard your equipment your own way:  
Cut to size, bend to shape, and weld anywhere you need it.



Length	Weight (lbs)
9.45" x .393" x 36"	24.36
9.45" x .393" x 48"	32.47
9.45" x .393" x 60"	40.34



**GENALCO** inc.  
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# WELDING INSTRUCTION BRUXITE

## Bruxite

### Areas of application

Bruxite wear edges & bars are intended for applications where there is a high demand for wear resistance.

### Material properties

Bruxite is high-tensile boron steel in accordance with EN 10083-3. The chemical composition of this material, together with the manufacturing method employed, ensures that it offers very good wear resistance and excellent welding properties (preheated to min. 50°C). Note: Unless the steel has been specially treated, avoid structures subject to fatigue stresses.

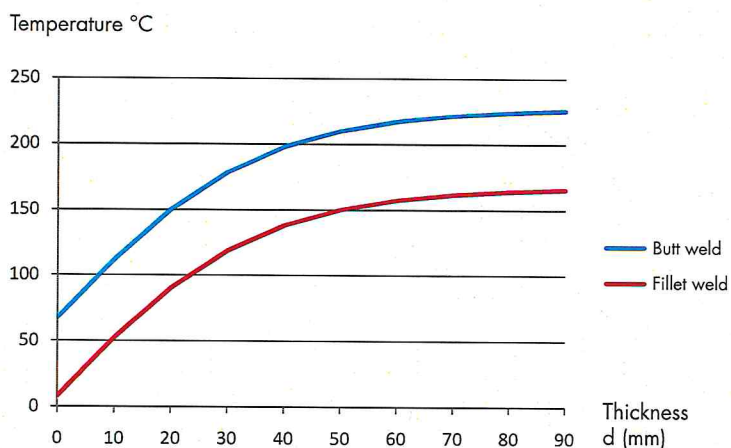
Mechanical properties The values are intended as a guide for 15-1,97 mm thick material.	Yield strength Rp0.2 N/mm <sup>2</sup>	Tensile strength Rm N/mm <sup>2</sup>	Elongation As %	Impact strength t °C KV J	
		1200	1600	6	-40
<b>Hardness</b>	Material thickness t ≤ 1,18 inches 500 ± 25 HB, t ≥ 1,38 inches 500 ± 40 HB				

These values are taken from standard EN1011 method B.

Tp Butt weld	TpCET	Tpd	TpHD	TpQ
	+175°	-50->+50°	+10°	-35->0°

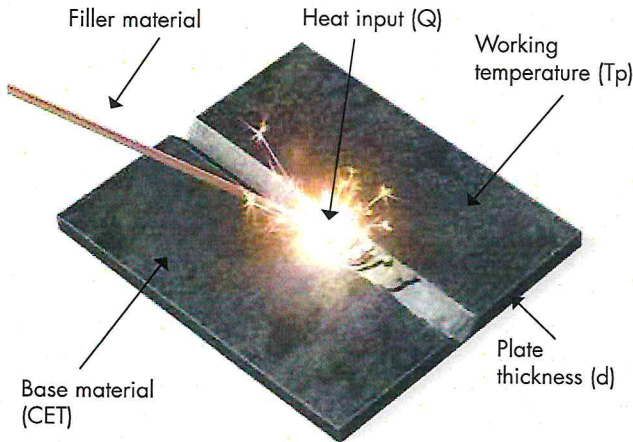
For fillet welds, the Tp value can be reduced by 60°.

### Olofsfors Bruxite 500, working temperature per material thickness



Note that for these curves Q = 1,2 and CET = 0,43 which means TpQ = 0°. To compensate for the welding process, please see the section on heat input in EN1011. For multi-run welds, the Q value is 2.5, which produces a temperature reduction of 15° in the curves above.

# WELDING REFERENCE GUIDE



- ▶ Ensure that there are good fit-ups between the joints and that the gap does not exceed 0,12 inches.
- ▶ Make sure that the welded joints are clean and dry.
- ▶ Plan the welding sequences and select filler materials before welding. (Single or multi-run welding)
- ▶ Preheat the material as recommended in welding instruction. When welding in a non-controlled environment (high atmospheric humidity), special precautions must be taken.

- ▶ The working temperature may not exceed 225°C, as the material is annealed out, which results in poor material properties.
- ▶ The working temperature must be measured 2,95 inches from the centre of the weld.
- ▶ It is a good idea to use heat chalk to keep a check on the temperature.
- ▶ To prevent moisture pickup, the filler material must be stored as per the manufacturer's recommendations. If pre-heating is necessary it must be done before the stitching.

## Recommended filler material for Bruxite

Manual welding electrode (welding pin)  
OK 48.30, OK 48.00 (E7018), OK 74.78 (E9018-D1) or equivalent.

MAG Welding (Gas metal arc welding)  
OK Autorod 12.51, OK Autorod 12.50 (ER70S-6), OK Autorod 13.13, OK Tuberod 14.13 (E70C-6M).  
Argon gas with 16% CO<sub>2</sub> or 23% CO<sub>2</sub> is recommended as a shielding gas.

# TOLERANCES

## Checks/Tests

Checks/tests of dimensions, straightness and surface hardness are always performed by qualified testers using calibrated equipment. Hardness testing equipment is calibrated according to ISO 6506-2. Brinell hardness test HBW according to EN ISO 6506-1 using a polished 0,39 inches hard metal ball forced into the surface 0,02 – 0,04 inches below the surface of the sheet metal. The frequency of checks varies depending on product type from one sample per furnace batch to all steel.

## Tolerances

Product tolerances are according to ISO 2768 if circumstances not require special tolerances. Generally, contours of the product are according to ISO 2768 v, hole c/c according to ISO 2768 m. Generally, max. 0,08 inches for edge straightness. For raw materials tolerances are according to EN 10029, EN 10060, EN 10058, and EN 10092-1.

## Surface quality

Product tolerances for surface finish are according to EN 10163, unless otherwise specified at time of order.