

Semi-automatic welding process filler metal and consumables

► FILLER METAL

For semi-automatic welding, the filler metal comes in the form of a continuous coil of wire.

The type of wire must match the grade of the metals to be welded: steel wire for welding steel.

We also distinguish three types of wire:

FLUX-CORED WIRE

Its tubular structure contains a filling that serves a similar role to that of a welding rod coating layer. It therefore protects the weld pool by forming a gas shield. By forming a slag layer, protects and moulds the weld bead. This slag layer must then be removed by hammering once cooled.

Flux-cored wire is used without gas.

NO GAS FLUX-CORED WIRE

- For welding low-alloy steels.
- Excellent weldability.
- Very good choice for welding galvanised steel.
- Used without shielding gas.

SOLID STEEL WIRE

- For welding carbon steel and low-alloy steels.
- Excellent wire feed-out and consistent welding performance.
- Narrow, stable arc with very little spatter.
- Shielding gas: 100% CO₂ or mixture of 80% Ar and 20% CO₂.
- This type of wire does not form a slag layer.



To order

Name	Ø (mm)	Weight (kg)	Reference
No gas flux-cored wire	0,9	0,45	W000075132
Bester SG2 - Solid steel wire	0,6	5	B06P005P6E00
Bester SG2 - Solid steel wire	0,8	5	B08P005P6E00
Bester SG2 - Solid steel wire	0,8	15	B08P015P6E00
Bester SG2 - Solid steel wire	1	5	B10P005P6E00
Bester SG2 - Solid steel wire	1	15	B10P015P6E00
Bester SG2 - Solid steel wire	1,2	15	B12P015P6E00

Choice of gas for solid wire semi-automatic welding

- **Welding steel:** argon/CO₂ gas mix.
- **Welding stainless steel:** argon/CO₂ gas mix.
- **Welding aluminium:** argon gas.



► TERMINOLOGY

The meaning of the terms "MIG" and "MAG" is linked to the type of gas used:

MIG = Metal Inert Gas.

The gas used is a neutral gas such as argon. Argon is used for welding aluminium with a semi-automatic welding machine. This process is called MIG welding.

MAG = Metal Active Gas.

The gas used is a mixture which will affect the properties of the weld pool. The process of welding steel or stainless steel using an argon/CO₂ mix is called MAG welding.