

# WHICH ELECTRODES FOR WHICH METALS?



The humble electrode is often the unsung hero of the welding process, and there are often questions about which sort you should be using for which jobs. Factors to be considered when making your choice include the electrode's base metal type, joint fit-up and welding positions. Just as crucial to know are which metals and surfaces will be welded on in the process; after all, getting the right electrode needed can make or break the entire process.

## STEEL

When working with steel, there are a variety of different-coated electrodes which could do the job. Ideal for use on structural steel and general fabrication for example is the SifTRODE 6013-R range from

Weldability Sif. Versatile and rutile-coated, these electrodes will interest all those working in multi-position operations.

Basic-coated electrodes meanwhile are perfect for unalloyed and low alloyed structural steels. The mild steel SifTRODE 7018-VP electrodes are a perfect example, and they also produce a very low hydrogen content deposit (below 5ml/100g) with recovery of about 118%.

The SifTRODE Spezial meanwhile is an example of a double coated electrode. Rutile-basic and universal, it is ideal for any jobs involving pipelines and steel construction. Its double coating results in stable, concentrated and direct arc, and it's the perfect electrode for joint penetrations and welding in difficult positions.

## COPPERS

For repairing copper and copper tin bronzes, brasses and phosphor bronzes, an ideal choice is the SifTRODE Bronze CuSn. Thanks to its basic tin bronze coating, this electrode is suitable for surfacing on brasses, wrought bronzes (CuSn), mild steel and cast steel.

## ALUMINIUM

Moving onto aluminium, the SifTRODE ALU Si12 can be used for rapidly joining cast aluminium alloys. Recommended for joining broken gear parts or other casting parts, it's ideal for repair or rebuilding parts on the weld.

## IRON

When cold welding grey malleable cast iron and joining cast iron with steel, you can choose between the SifTRODE Cast Ni and Cast NiFe electrodes. The former are cast iron MMA electrodes coming with pure nickel core wire, and are suitable for welding in all popular positions. The Cast NiFe option meanwhile works the same but using a NiFe bimetal core wire instead. It also comes with high welding speed and almost zero spatter whilst being able to easily remove slag from the weld.

Finally, for elements exposed on heavy impact and medium abrasion is the SifTRODE HF600. This is a hard facing general purpose electrode providing 57 – 62 HRC hardness, making for one tough cookie in the welding bay.

You will always find the right consumable for any weld in the Weldability Sif Range. ●

# sif tips



Technical advice in the original SifTips style was started in 1932. 'Sifbronzing' is an almost universally recognised way of describing the low temperature bronze welding of sheet steel, cast iron and other metals. This explains why Sifbronze, the company which first developed and promoted the technique, is generally considered to be a supplier of high quality welding rods, wires, fluxes and equipment.

'Will the Welder' was a SifTips magazine that was produced in the early 1930s. The aim was to provide users with ideas and tips on how to get the most out of their welding equipment.

Sif is renowned for its UK manufacturing heritage as well as its complete range of quality welding consumables used globally for almost a century.

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