

## STORAGE AND HANDLING OF FILLER METALS

Filler metals are supplied in various packaging types, such as cardboard and shrink film. The packaging is not completely airtight and cannot prevent moisture from entering into the filler metal and being absorbed into the wire coatings and flux.

This makes demands on the storage conditions. We recommend all filler metals to be stored in original, undamaged packaging and under controlled temperature and humidity conditions.

## MMA ELECTRODES AND FCW

MMA electrodes and FCW (flux-cored wires) are sensitive to moisture absorption. A high moisture content in the electrode coating or the flux of the flux-cored wire can cause welding errors. Moisture in coating or flux will decompose in the arc, forming hydrogen-filled pores in the finished weld metal. This may cause formation of hydrogen cracks in weld and base material.

Unalloyed and low-alloy flux-cored wires have an overall slow moisture absorption, since the flux is inside the wire, protected by the jacket. Still, it is important to store the wires properly. Inappropriate storage conditions can cause the wire surface to corrode (rust), or the wire to become contaminated by metal dust or other contaminants, which will adversely affect wire feeding as well as welding quality. The storage temperature should not fall below 15°C. The minimum variation should be kept at +/- 5° C and the relative humidity should not exceed 55%.

## SOLID WIRES

Solid wires for MIG/MAG and TIG have no coating or flux, which should be protected from moisture absorption. To prevent the wires from corroding (rusting), however, they must still be protected from moisture. Moisture will also adversely affect the welding quality. Please note that condensation (water) can occur on the surface of solid wires if you take them from cold to warm environments. For that reason, the temperature of the solid wires and the ambient temperature should be identical when you start welding.

## ALUMINIUM WIRES

Aluminum wires are particularly sensitive to moisture absorption. Insignificant traces of moisture can cause severe formation of hydrogen pores in the finished weld. That is why it is important to keep the wire in original packaging until use. Unpackaged aluminum wire must be stored in a heat cabinet. Avoid dust and impurities on wires mounted in welding equipment. It is advisable to bring filler metal and base material into the welding area 24 hours in advance so as to level the temperature difference between the materials. As an extra safety measure, you can carry out dew point tests prior to welding. If you use preheating, do not preheat to more than 65°C. Keep in mind that, when you pre-heat using butane or propane, the combustion will generate water.

## DISPOSAL OF PACKAGING

Migatron packaging can be disposed of at municipal environmental and waste disposal sites. If in doubt, please contact the renovation services.

