

STORAGE AND HANDLING

To ensure that welding consumables are maintained in an optimum condition it is important that they are stored and handled correctly. This document summarises the requirements for the different consumables and processes.

General storage recommendations for all consumable are >18°C and <60% relative humidity.

MMA Electrodes

Standard Metrode MMA electrode packaging is hermetically sealed metal tins. The metal tins have a ring pull and provide an excellent and efficient form of packaging for MMA electrodes. Packaging waste is minimal and the steel tin can easily be recycled with normal steel scrap.

The tins are hermetically sealed and meet the requirements of AWS A5.5 paragraph 22.2 for hermetically sealed containers. If unopened, and appropriately stored, this packaging will maintain the electrodes in the as-packed condition for an indefinite period of time.

Once opened the tins can be closed using the plastic lid supplied and should be stored at >18°C and <60% relative humidity.

Electrodes can be used directly from freshly opened tins, without need for redrying treatment. Storage of electrodes on the shopfloor, during usage, should be in the tins or a suitable container, eg heated quiver. Electrodes are capable of being stored in this manner for periods substantially longer than a typical eight hour working shift, without risk of flux coating moisture increasing to a level where there is a risk of weld porosity.

Excessive exposure of electrodes to humid conditions, will promote moisture pick-up and risk of weld porosity. In situations where this is suspected, or weld porosity is encountered, electrodes can be restored to the as-packed condition by redrying for 1-2 hours. Check data sheets for information on specific electrodes.

A maximum of three redrying cycles and/or ten hours total time at temperature is recommended to avoid permanent flux damage. Temperatures during redrying should not exceed 400°C.

SOLID WIRES

Solid TIG wires are supplied in 2.5kg or 5kg tubes, and MIG wires are supplied on 12.5kg or 15kg spools (either plastic or metal baskets). The solid wires that may be susceptible to rusting (mild steel and low alloy) are copper coated. Under appropriate storage conditions solid wires do not present any handling difficulties.

MIG wires supplied on 15kg wire baskets need to be properly handled because if they are lifted by one rim it can bend the basket and lead to feeding problems.

FLUX CORED WIRES

Flux cored wires need to be stored correctly to prevent moisture pick-up, which may lead to porosity. As supplied, the wires are adequately protected for moisture pick-up to not present a problem, but once opened, part-used spools need to be correctly stored. It is recommended that spools are removed from machines overnight and put in a controlled store. If a part spool is to be stored for any period of time it should be adequately protected (in a plastic bag with desiccant) and held in a controlled store.

Care is required when handling mild steel and low alloy wires because handling of the wire surface can result in rust marks if the wire is then stored for a prolonged period. If the wire is to be used immediately, handling the wire surface presents no problems but if a part spool is to be stored for any period of time, avoid touching the wire surface with bare hands.

SUBMERGED ARC FLUX

Submerged arc fluxes are supplied in metal drums, but for most applications it is recommended that the flux should be dried prior to use. See applicable data sheets for redrying information.

Redrying and holding sequence for Metrode electrodes.

