

PRODUCT DATA SHEET

TA FLUX Root Protection

DESCRIPTION

The flux is applied to root side before welding and protects against oxidation, which occurs during welding. TA Flux is specially developed for use in connection with GTAW-welding of low-alloy and stainless steel with a maximum 25% nickel content but can also be used with other methods.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Grey powder
 Odor: Odourless
 PH Value: <10 (10 g/l)
 Solubility: Slightly soluble

CHARACTERISTICS

TA Flux root-protector is delivered in powder form, which is mixed with denatured ethanol before welding. The distinguishing quality of the flux is its ability to eliminate oxide inclusions and the formation of tempering oxides during welding. TA Flux does not perform as well as gas protection. TA Flux is most appropriate used when the construction complicates the use of gas protection. TA Flux replaces tape and ceramic backing. TA Flux works also as weld support by distributing the heat evenly underneath the weld. Furthermore, it acts chemically by effectively cleansing the melt of contaminants.

ADVANTAGES

- ❖ Prevents oxide inclusions
- ❖ Protects the root side from oxidation
- ❖ Gives an even smooth bead
- ❖ Eliminate pore formation
- ❖ Prevents burn-through

Testing according to ASTM G48 revealed the following technical data:
 Loss of weight with Argon protection = 100%
 Loss of weight with TA Flux root protection = 180%
 Loss of weight without weld protection = 318%

AREAS OF USE

As a protective layer during welding:

TA Flux has several important functions when applied to the weld. The weld is protected against oxidation. The weld bead can be laid with a higher and constant speed. The flux's moistening and supporting effects on the melt redirects the surplus heat from the local areas in the weld and thereby prevents uncontrolled penetrations and burn-through. Pin-holes are prevented by even, uniform heating and the absence of contaminants.

Spot welding:

TA Flux is applied to the surfaces of the joint before assembling. It works as a cleansing agent prevents the formation of tempering oxides in the vicinity of the spot welds. This process eliminates the risk of contaminating the weld joint and allows the spot weld to melt easily during the subsequent welding.

Overlapping welds:

TA Flux applied to the underside of overlaps prevents uncontrolled penetrations. Even heating and lower cooling speed prevents brittleness and gives stronger, more ductile welds.



