

Agglomerated Welding Flux BF 47

Flux type: Calcium-Silicate

Classification: ISO 14174 – S A CS 2 5644 DC

Characteristics:

Agglomerated and neutral flux (without alloy-compensation) designed for hardfacing, overlay strip welding and joint cladding together with stainless strip electrodes of the Cr-, CrNi(Mo)-steel types. Applicable for SAW-process as well as for use with the ESO® (Extended Stick Out)-cladding system which enables highest possible deposit rates as a result of the Joule heat (I^2R)-effect. BF 47 gives excellent slag removal without slag residuals, in the first layer on preheated substrates as well as in subsequent layers. The flux has low hydrogen potential, which makes it most suitable for overlay welding of heat resistant steels such as A387-types. Smooth weld bead appearance and notch-free transitions are features

achievable with all cladding processes. Constant dilution rates can be gained when using process-characteristic welding parameters. BF 47 shows constant chemical reactions as typical for a non-alloyed flux.

Application:

BF 47 can be used for hardfacing, joint cladding and surfacing. In combination with appropriate strip electrodes of the EQ300/EQ400 (without Nb) series according to A5.9 or according to EN ISO 14343 (EN 12072) constant weld overlays are achievable. The flux is highly viscous and creates a reinforcing effect for the weld pool. This characteristic brings exceptional advantages when cladding small-diameter rolls.

Further information on request.

Characteristic chemical Constituents:

| $\text{SiO}_2 + \text{Al}_2\text{O}_3 + \text{TiO}_2$ | $\text{CaO} + \text{MgO}$ | CaF_2 |
|---|---------------------------|----------------|
| 50 % | 30 % | 15 % |
| Basicity according to Boniszewski: ~1.2 | | |

Flux density: 1.0–1.1 kg/dm³ (l)

Grain size acc. to ISO 14174: 2–20 (Tyler 8×65)

Current-carrying capacity: 1,500 A DC using one strip electrode 60 x 0.5 mm

Packaging: 25 kg Alpha Dry Alu-Bag

Storage: Unopened originally packed flux bags can be stored up to one year in dry storage rooms after date of delivery ex factory.

Redrying conditions specific to the flux:
150–200 °C effective flux temperature