

ML-306

Basicity 4.6

EN ISO 14174 ES A FB 2B DC

Characteristics and Applications:

ML-306 is an agglomerated, neutral flux for Electroslag Strip Welding. It is designed as a non-alloyed flux without any Cr and Ni compensation during welding. It is used for overlaying Ni base alloys, such as type 625. ML-306 exhibits very smooth, tight-rippled weld bead appearance and excellent wetting action. Easy slag could be removed easily in the first or the following layers.

- For overlaying components for chemical plants such as valves, fittings and reactors
- Overlaying Ni base alloys, such as type 625/EQNiCrMo-3

Notes on usage:

1. Flux exposed to atmosphere for an excess period must be re-baked at 300~350°C for 2hr holding time.
2. Re-circulation of flux should be mixed with twice its volume of new flux prior to further use.
3. We recommend using heated hoppers for storage of flux in production.

Typical chemical composition of weld metal (wt %):

On steel plate A36

| Strip | A 5.14 | Layer | C | Mn | Fe | Si | Cu | Ni | Al | Ti | Cr | Nb+Ta | Mo |
|--------|------------|-----------|------|------|------|------|-------|------|------|------|------|-------|------|
| TBD-61 | EQNiCrMo-3 | Strip | 0.01 | 0.01 | 0.44 | 0.06 | 0.005 | 65.7 | 0.11 | 0.27 | 21.6 | 3.45 | 8.25 |
| | | 1st layer | 0.02 | 0.04 | 3.45 | 0.39 | 0.005 | 63.5 | 0.02 | 0.03 | 21.1 | 3.15 | 8.26 |
| | | 2nd layer | 0.01 | 0.01 | 0.86 | 0.36 | 0.005 | 65.3 | 0.01 | 0.03 | 21.7 | 3.22 | 8.43 |

Remark:

1. Welding parameter :

Strip: 0.5X60mm

1st layer: 1125A/24V/16 cpm, stick out 35mm, Flux covered 40mm

2nd layer: 1125A/24V/12 cpm, stick out 35mm, Flux covered 40mm

Interpass temperature: <150°C

2. The chemistry will be influenced by welding parameter 、welding equipment and bead thickness etc..

Size of strip:

Width & Thickness: 30x0.5mm, 60x0.5mm