TFS-303

Characteristics and Applications:

TFS-303 is a fused type of flux for various applications. It is designed primarily for SAW of 5%, 9%Ni alloys and joining of dissimilar base metals. You can produce good results when weld pipes and steels in combination with appropriate TW-17 wire electrodes.

- 5% & 9%Ni alloys
- Pipe or plate join

Notes on usage:

- 1. Drying the flux at 150°C~300°C for 1hr if moisture pick-up of flux is suspected.
- 2. Adding proper quantity of new flux with the used one to maintain good quality of weld metal.
- 3. While using TW-17 as combination, keep the inter-pass temperature under 100° C.

Typical chemical composition of weld metal (wt %) :

| Wire | С | Mn | Si | Р | S | Ni | Cr | Мо | V | Со | W | Fe |
|-----------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| TW-17 (ERNiCrMo-4) | 0.015 | 0.40 | 0.43 | 0.02 | 0.004 | 57.8 | 15.4 | 15.5 | 0.13 | 0.05 | 3.40 | 5.70 |

Typical mechanical properties of weld metal:

| Wire | Yield strength MPa(ksi) | Tensile strength MPa(ksi) | Elongation % | Charpy V-Notch J (ft-lbf) -196°C(-320°F) | |
|-------|----------------------------|------------------------------|-----------------|--|--|
| TW-17 | 470(68) | 680(99) | 40 | 75(55) | |

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