SubCor M13K

Characteristics and Applications:

SubCor M13K is a metal cored wire for submerged arc welding designed for welding 490N/mm² grade high tensile steel and low temperature steel, the application is similar to solid wire classification EM13K. It provides high deposition rates as compared to the solid wires of equal size, with the same amperage, electrical stick out and flux. Welded with SAW flux that provides smooth bead appearance, high porosity resistance and excellent low temperature impact toughness at -50 . Typical applications include structure steel, bridges, tank fabrication, shipbuilding and offshore fabrication.

Notes on usage:

- 1. To keep the toughness, the plates should not be welded with excessive heat input.
- 2. If the flux is affected by moisture pickup, it must be re dried at temperature between 300 and 350 for 1 hour.
- 3. Keep the product dry, while it is stored or delivered.

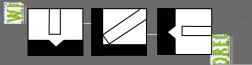
Typical chemical composition of weld metal (wt%):

| Flux | A5.17 | С | Mn | Si | Р | S |
|--------|----------|------|------|------|-------|-------|
| TF-565 | F7A6-EC1 | 0.05 | 1.60 | 0.27 | 0.025 | 0.008 |
| TF-666 | F7A6-EC1 | 0.05 | 1.7 | 0.29 | 0.027 | 0.001 |

Typical mechanical properties of weld metal:

| Flux | Yield strength MPa(ksi) | Tensile strength MPa(ksi) | Elongation % | Charpy V-Notch J (ft-lbf) -50 (-60) |
|--------|----------------------------|------------------------------|-----------------|--|
| TF-565 | 450(65) | 515(75) | 34 | 50(37) |
| TF-666 | 450(65) | 525(76) | 35 | 55(41) |

Welding position:



| Sizes and red | commended | parameter range (| (💇 - | F) | |
|---------------|---------------|-------------------|-------|-----|--|
| | Diameter (mm) | | | | |

| Position | | | | 2.4 | 3.2 | 4.0 |
|----------|---|----|---|-------------------|-------------------|-------------------|
| | F | HF | Н | 300A-500A/25V-34V | 300A-600A/26V-35V | 350A-750A/27V-35V |

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