

TAC-60

AWS A5.5 E8018-W2
JIS Z 3214 DA5016 W

Characteristics and Applications:

TAC-60 is for the welding of 550N/mm² grade high tensile weathering steel. The welding can be done in all-position with good atmospheric corrosion resistance, good X-ray soundness, and good crack resistance. The weld metal contains Cu, Ni and Cr. It is suitable for welding of 590N/mm² high tensile steel such as SMA570W/P、ASTM A350/350M, etc..

Notes on usage:

1. Dry the electrodes at 300-350°C for 60 minutes before use.
2. Do not exceed the range of recommended current. Over heat input might decrease the impact value.
3. Maintaining short arc length as possible is highly recommended. While welding with weave method, moving range should be controlled within 3 times of the wire's dia.
4. While applying in plate with high restraint (such as the plate is thicker than 25mm), pre-heating at 80~100°C is recommended.
5. Be sure to clean up the contaminations on the base metal and welding seam so as not to derogate the weld metal quality from particles.
6. Use back-step method to prevent arc starting from blowholes and hold for 3-5 seconds at every end-up.

Typical chemical composition of weld metal (wt%):

| C | Mn | Si | P | S | Cu | Ni | Cr |
|------|------|------|-------|-------|------|------|------|
| 0.07 | 0.70 | 0.50 | 0.015 | 0.010 | 0.60 | 0.70 | 0.52 |

Typical mechanical properties of weld metal:

| Yield strength MPa(ksi) | Tensile strength MPa(ksi) | Elongation % | Charpy V-Notch J (ft-lbf) -20°C (0°F) |
|----------------------------|------------------------------|-----------------|---|
| 560(81) | 640(93) | 26 | 135(100) |

Welding position:



Sizes and recommended current range (AC or DC<+>):

| Diameter (mm) | | 3.2 | 4.0 | 5.0 |
|---------------|------|---------|---------|---------|
| Length (mm) | | 350 | 450 | 450 |
| Amps | F | 100-140 | 140-180 | 180-230 |
| | V&OH | 90-110 | 130-160 | - |

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