

Thermanit 25/09 CuT / Marathon 431

SAW wire/flux combination, high-alloyed, stainless

| Classification | | | | | | | | | |
|-------------------------|-----------|--------------|--|--|--|--|--|--|--|
| SAW solid wire: | SAW flux: | | | | | | | | |
| EN ISO 14343-A AWS A5.9 | | EN ISO 14174 | | | | | | | |
| S 25 9 4 N L | ER2594 | SA FB 2 DC | | | | | | | |

Characteristics and typical fields of application

Thermanit 25/09 CuT / Marathon 431 is a wire/flux combination for submerged arc welding of super duplex stainless steel grades like SAF 2507, ASTM S32760, S32550 and S31260.

The weld metal shows excellent resistance to pitting- and crevice corrosion in chlorine containing media as well as to stress corrosion cracking especially in H_2S containing media. Suitable for service temperatures from $-40\,^{\circ}C$ to $+220\,^{\circ}C$.

Marathon 431 is an agglomerated basic flux that ensures good welding properties with nice bead appearance and good slag detachability. For more information regarding this sub-arc welding flux see our detailed data sheet.

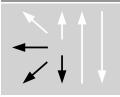
Base materials

Super-duplex steels such as: UNS No. S 32570, S 31260, S 32570, S 32760 etc.

| Typical analysis of the wire and of all-weld metal (wt%) | | | | | | | | | | | |
|--|-------|------|-----|------|-----|-----|------|-----|-----|--|--|
| | С | Si | Mn | Cr | Ni | Мо | N | Cu | W | | |
| Wire | 0.015 | 0.40 | 1.0 | 25.5 | 9.5 | 3.8 | 0.22 | 0.5 | 0.6 | | |
| Weld metal | 0.02 | 0.50 | 0.8 | 25.0 | 9.5 | 3.8 | 0.22 | 0.5 | 0.6 | | |

Mechanical properties of all-weld metal Heat-Yield strength Tensile strength Elongation Impact work A $(L_0=5d_0)$ ISO-V CVN J treatment $R_{p0.2}$ R_{m} MPa **MPa** % -46 °C 650 870 >20 >45 aw

Operating data



Polarity: Prel

DC+

Preheating: None Interpass temp.: ≤ 120 °C Heat Input: < 1.5kJ/mm

PWHT (if required): approx. 1130 °C / water quenching

Approvals

ABS, DNV, BV