

TWE-81W2

AWS A5.29 E81T1-W2C

Characteristics and Applications:

TWE-81W2 is a titania type flux-cored wire and suitable for butt or fillet MAG welding of 590N/mm² weather-proof grade steel and A588、A234、A242、A333 or COR-TEN 60 (used normally without painting) at low temperatures. It can be applicable for all-position welding and show smooth bead appearance and shape, spattering.

Notes on usage:

1. Must pre-heat ;inter-pass temperature should be controlled around 50°C~150°C.
2. To keep the toughness, the plates should not be welded with excessive heat input.
3. Use DC(+) polarity and CO₂ gas.
4. Keep the product dry, while it is stored or delivered.

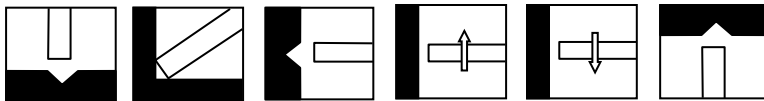
Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni	Cu
AWS	≤0.12	0.50-1.30	0.35-0.80	≤0.030	≤0.030	0.45-0.70	0.40-0.80	0.30-0.75
Typical value	0.03	0.85	0.42	0.015	0.007	0.53	0.60	0.40

Typical mechanical properties of weld metal:

	Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) -30°C (-20°F)
AWS	≥470(68)	550-690(80-100)	≥19	≥27(20)
Typical value	603(87)	646(94)	26	85(63)

Welding position:



Sizes and recommended parameter range (DC <+>):
Stick out:15-25(mm), gas flow rate:20-25(l/min):

Position	Diameter (mm)	1.2	1.6
	F、HF、H		180A-300A / 26V-36V
VU、OH		150A-220A / 24V-28V	180A-230A / 20V-24V
VD		220A-320A / 24V-32V	250A-350A / 25V-32V

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