

TL-56

AWS A5.1 E7028
EN ISO 2560-B-E4928 A
JIS Z 3211 E4928

Characteristics and Applications:

TL-56 is an iron powder type, 490 N/mm² high tensile steel electrode. It is specifically designed for the speed gravity welding in shipbuilding, bridges and vehicles with good mechanical properties, good crack resistance and effective electrode efficiency about 125%.

Notes on usage:

1. Dry the electrodes at 150°C for 30-60 minutes before using.
2. Clean up the contaminations on the base metal to avoid porosity and crack.
3. Use back-step method to prevent blowholes from arc starting.
4. Do not exceed the range of proper currents. Over heat input might decrease the impact toughness.

Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S
AWS	≤ 0.15	≤ 1.60	≤ 0.90	≤ 0.035	≤ 0.035
EN ISO	≤ 0.15	≤ 1.60	≤ 0.90	≤ 0.035	≤ 0.035
Typical value	0.1	0.9	0.20	0.025	0.01

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)
AWS	≥ 400(58)	≥ 490(70)	≥ 22	≥ 27(20)
EN ISO	≥ 400(58)	≥ 490(70)	≥ 20	≥ 27(20)
Typical value	500(73)	560(81)	28	67(49)

Welding position:



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

Diameter (mm)		3.2	4.0	5.0	5.5	6.0
Length (mm)		350	450	550	550	550
Amps	F, H-fillet	120-160	160-200	200-240	230-270	250-300

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