

TGA-50

AWS A5.18 ER70S-G
EN ISO 636-B W 49A Z C SZ
JIS Z3316 W 49 A 3U 0

Characteristics and Applications:

It is designed for welding of mild steel and 490N/mm² grade steel. TGA-50 is widely applied to butt or fillet welding of high pressure piping for shipbuilding, petro chemistry and nuclear power plant, etc.. TGA-50 is an all-position welding rod for TIG welding. Especially suitable for root pass of pipe welding by DC(-) polarity.

Notes on usage:

1. Use 99.997% purity of Ar as shielding gas with current range around 100~200 Amp while gas flow rate is 7~12 l/min; and around 200~300 Amp while gas flow rate is around 12~15 l/min.
2. Clean the surface of base metal to prevent contamination.

Typical chemical composition of wire (wt%)

	C	Mn	Si	P	S	Cu	Ti
AWS	Not Specified						
EN ISO	Not Specified						
Typical value	0.07	1.50	0.90	0.02	0.01	0.030	0.015

Typical mechanical properties of weld metal

	Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-1bf) -30°C (-20°F)
AWS	≥ 400(58)	≥ 490(70)	≥ 22	≥ 27(20)
EN ISO	≥ 460(67)	530-680(77-99)	≥ 20	≥ 47(36)
Typical value	440(64)	550(80)	33	200(162)

Sizes available

Diameter (mm)	1.6	2.0	2.4	3.2	4.0
Length (mm)	915				

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