

TM-70

AWS A5.18 E70C-3M/6M
EN ISO 17632-A-T 42 2 M M21 3 H5
JIS Z 3313 T 49 0 T15-0 M A

Characteristics and Applications:

TM-70 is a metallic flux cored wire designed to be used with Ar/CO₂ for mild steel and 490N/mm² high tensile steel, its deposition rate is 10-30% higher than a solid wire. Multi-layer welding can be performed without removing slag. Smooth arc characteristics low diffusible hydrogen weld deposit low smoke and spatter levels. It is suitable for steel structure, bridges, shipbuilding, vehicles, storage tanks, etc.

Notes on usage:

1. Use DC(+) polarity.
2. When you use larger diameters (1.6mm or higher), we recommend higher power supply of welder.
3. Trailer Shield is essential to ensure that the weld pool is completely shielded by 75~80%Ar-25~20% CO₂ gas until solidification is complete and no porosity problem.
4. Inter-pass temperature should be under 150°C while in multiple-pass welding.
5. Keep the product dry, while it is stored or delivered.

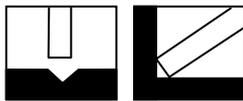
Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S
AWS	≤ 0.12	≤ 1.75	≤ 0.90	≤ 0.03	≤ 0.03
EN ISO	-	≤ 2.0	-	-	-
Typical value	0.05	1.45	0.47	0.012	0.008

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)	-30°C (-20°F)
AWS	≥ 400(58)	≥ 480(70)	≥ 22	≥ 27(20)	≥ 27(20)
EN ISO	≥ 420(61)	500-640(73-93)	≥ 20	≥ 47(35)	-
Typical value	488(71)	559(81)	31	70(52)	58(43)

Welding position:



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

Stick out: 15-25 (mm), flow rate: 20-25 (l/min)

Parameters	Diameter (mm)	1.2	1.4	1.6
F, HF		160A-300A / 24V-36V	200A-350A / 26V~34V	270A-400A / 28V-40V

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