

T-Cast 50

AWS A5.15 ENiFe-CI
JIS Z 3252 DFCNiFe

Characteristics and Applications:

T-Cast 50 is a covered electrode of Fe-Ni alloy core rod with graphite coating. The weld metal provides low expansion coefficient, less hardening and good machining property. It is suitable for ductile cast iron, malleable cast iron and gray cast iron. Satisfied performance can be obtained specifically in the welding of large or high-restraint workpiece.

Notes on usage:

1. Clean up the contaminations on the base metal and welding seam so as not to derogate the weld metal quality from crack and porosity.
2. Heat the welding portion to fully evaporate oil, liquor or solvent on it, the recommended temperature is around 400~500°C.
3. Maintain short arc length. Moving range should be controlled within 3 times of the wire's dia when you are welding with weave method.
4. Use intermittent weld and keep arc length short (no longer than 3") or otherwise the prolonged heating might cause crack on joint edge. Symmetrical intermittent weld should be applied to multi-layer welding so as to balance the heat stress.
5. Based on the metal's type, shape, and size, pre-heating and slow cool-down is sometimes required.
6. To alleviate shrinking stress, proceed peening on and off at the temperature above 540°C after welding to prevent crack or distortion.

Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Ni	Cu	Al
AWS	≤2.0	≤2.5	≤4.0	-	≤0.03	45-60	≤2.5	≤1.00
EN ISO	≤2.0	≤2.5	≤4.0	-	≤0.04	40-60	≤2.5	≤1.00
Typical value	1.05	0.25	1.80	0.01	0.002	50.5	0.014	0.15

Welding position:



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

Diameter (mm)	2.6	3.2	4.0
Length (mm)	300	350	350
Amps	60-80	70-120	100-150

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