

T-Cast 100

AWS A5.15 ENi-CI
JIS Z 3252 DFCNi

Characteristics and Applications:

T-Cast 100 is a covered electrode with graphite type coating and pure Ni alloy core rod. The weld metal provides excellent mechanical properties, good tensile strength and good crack resistance and. It is suitable for the repair welding of high pressure parts and cast iron products, etc.. carbon decrement or even whitening is hardly happened in weld metal and satisfied performance can be obtained in light or median size workpiece with fair content of phosphorus or weld stress.

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 at 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	Fe	Cu	Al
AWS	≤2.0	≤2.5	≤4.0	-	≤0.03	≤85	≤8.0	≤2.5	≤1.0
EN ISO	≤2.0	≤2.5	≤4.0	-	≤0.03	≤85	≤8.0	≤2.5	≤1.0
Typical value	0.70	0.20	0.55	0.005	0.001	97.0	0.85	0.001	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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