

Inweld Nickel 55

AWS A5.15 Class ERNiFe-CI
ASME SFA5.15 Class ERNiFe-CI



Description and Applications:

Inweld 55 is used for TIG and MIG welding of cast iron. This filler metal is extensively employed to overlay the cast iron rolls. It is also used to repair the castings. The weld metal of Inweld 55 is harder than that of Inweld 99. However, the machining can be accomplished by using carbide tipped tools. A preheat and interpass temperature of 350°F (175°C) minimum is recommended during welding, without which the weld and heat affected zones could develop cracks.

Chemical Composition of Inweld Nickel 55 ERNiFe-CI

C	Mn	Si	Fe	Ni	Total Other(s)
0.05	0.25	0.15	43.6	55.9	0

Single values are maximum unless otherwise specified.

Approximate Melting Temperature:
Yield Strength: 62,000 psi (430 MPA)
Tensile Strength: 89,500 psi (620 MPA)
Elongation (%): 35%



Recommended Welding Parameters:

	Wire Diameter	Amperage*
GMAW (Direct current; electrode +Ve) 75% Argon + 25% Helium or 50% Argon + 50% Helium mixture	0.035"	160-180
	0.045"	180-220
	1/16"	210-250
GTAW (Direct current; electrode - Ve) Use 100% Argon 2% Thoriated, 2% Ceriated or 2% Lanthanum Tungsten Electrode Gas Flow: 30 - 40 CFH		
SMAW (Direct current; electrode +Ve) Voltage: 29-32	3/32"	300-350
	1/8"	400-550
	5/32"	500-650