

# Inweld NI-55

AWS A5.15 ENiFe-CI

## Chemical Composition of Inweld NI-55

Fe	C	Cr	Ni	Al	Mn	Si	P	S	Other	Cu
Balance	2.0	---	45.0- 60.0	1.0	2.5	4.0	---	0.03	1.0	2.5

Single values are maximum unless otherwise specified.

## Description and Applications

All-Position “cold” welding or joining of cast iron, malleable iron, and ductile iron to themselves or to dissimilar metals such as mild steel, stainless steel, wrought steels, and high nickel alloys. The ferro-nickel core wire produces weld deposits that exhibit much lower weld shrinkage stress which reduces the possibility of weld or heat-affected zone cracking. Excellent for welding heavy sections such as motor blocks, housings, machine parts, frames, defective castings, and build-up worn sections. Weld deposits are machine-able and the color will match that of cast iron. Tensile strength up to 80,000 psi; Brinell hardness 200.

## Typical Weld Metal Properties

	<u>AWS Spec</u>
Average As-Welded Brinell Hardness:	200
Tensile Strength:	80,000 psi
Yield Strength:	50,000 psi
Elongation:	10%

## Recommended Parameters

GMAW (DCEP – Electrode+)

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>
3/32”		50-80
1/8”		80-120
5/32”		110-140
3/16”		130-170

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