

# NICORE 55

## FEATURES

Nicore 55 is a composite metal cored wire for repair and joining of cast iron materials. The deposit, which is approximately 53% iron and 45% nickel, provides an excellent match for the coefficient of expansion exhibited by cast irons. Cracking is minimized because thermal stresses caused by the heat of welding are minimized. The light slag is easily removed enhancing visual weld inspection. The fact that this is a continuous electrode will improve the operating factor and minimize unnecessary stops and starts. This electrode can replace covered electrodes such as AWS ENiFe-CI or ENiFe-CI-A. It may be used for repair welds or for joining various types of cast irons. Cast irons may be welded to steel and other ferrous and non-ferrous materials with this product. The machinability of the weld deposit is comparable to the matching covered electrode.

Substantial savings in weld metal deposition costs will be realized when replacing 55% nickel coated electrodes with Nicore 55. The deposition rate of this wire is more than twice that of a comparable coated electrode. The efficiency (approximately 97%) compared to that of coated electrodes (56% assuming 3" stub loss) is substantially greater. These two factors result in substantial savings in weld metal deposition costs. Because of the high deposition rate, the travel rate is very fast, resulting in lower heat input which is advantageous in welding cast irons.

## TYPICAL MECHANICAL PROPERTIES

Ultimate Tensile Strength	72 ksi, 500 MPa
Elongation in 2"	12%
Brinell Hardness	187 BHN

## WELD METAL ANALYSIS

C	1.05%
Mn	0.22%
Si	0.61%
P	0.009%
S	0.005%
Ni	Balance%
Fe	53.0%

## WELDING PROCESS

- MCAW (Metal Core)

# NICORE 55 continued

DEPOSITION TABLE			
Diameter in (mm)	Amps	Volts	Electrical Stickout in (mm)
0.035 (0.9)	160	27	1/2 (12.7)
.045 (1.2)	230	28	1/2 (12.7)
1/16 (1.6)	300	28	5/8 (14.7)
3/32 (2.4)	250	20	5/8 -3/4 (14.7-19)

PART NUMBER / PRODUCT INFORMATION		
Part Number	Description	UPC
258070416	NC 55 035X15#PSP/60#CT	662303082307
258070515	NC 55 035X33#PSP	662303008567
258070598	NC 55 035X500#RL	662303008628
258070408	NC 55 045X15#PSP/60#CT	662303082291
258070507	NC 55 045X33#PSP	662303008550
258070606	NC 55 1/16X200#RL	662303008635
258070549	NC 55 1/16X33#PSP	662303008598
258070556	NC 55 3/32X60#CL	662303008604