



**DATA SHEET
DS 217
Rev. 05 dd 27/09/2013
INE NICHEL**

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CLASSIFICATION

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.15: ENi-CI	
ASME SFA 5.15: ENi-CI	

APPROVALS

ALLOY TYPE

Graphite-coated electrode for cold welding of cast iron.

APPLICATIONS

Graphite-coated electrode with pure nickel core designed for cold welding of cast iron, grey iron (malleable), cast iron & steel coupling. Intended for all positions; suitable for machining; thanks to resistance to hardening of weld metal it could be used for buttering prior to filing with Ni – Fe electrode. It finds application in engineering, engines employ, industrial machinery and construction. The use of the thinnest electrode with low values of current and cleaning of base material are recommended. The weld bead ought to be hammered soon after welding to reduce internal strains, the source of possible cracks.

MATERIALS TO BE WELDED

ASTM		EN		Others
A 159		(DIN 1691 GG10)	(DIN 1693 G GG-50)	
A 319		(DIN 1691 GG15)	(DIN 1693 G GG-60)	
A 126		(DIN 1691 GG20)	(DIN 1692 GTS-35-10)	
A 48		(DIN 1691 GG25)	(DIN 1692 GTS-45-06)	
		(DIN 1691 GG30)	(DIN 1692 GTS-55-4)	
		(DIN 1691 GG35)		
		(DIN 1693 G GG-40)		

WELDING GUIDELINES

Preheat and PWHT are not required. In some cases a preheat at 150°C is recommended.

TECHNICAL INFORMATION

Welding positions: all positions



WELDING PARAMETERS

Current	AC / DC - (+) Straight polarity					
Diameter (mm)	2.5	3.2				
Length (mm)	300	350				
Intensity (A)	50 ÷ 90	70 ÷ 110				



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TYPICAL CHEMICAL COMPOSITION OF WELD METAL

C %	Mn %	Si %	S %	Cu %	Ni %	Fe %			
0.50	0.70	0.50	0.015	0.60	96.00	2.00			

TYPICAL MECHANICAL PROPERTIES

	Yield strength	Tensile strength	Elongation on % 5d	Impact energy (Charpy V)				
	Rs	Rm	A 5d	+20°C	0°C	-20°C	-40°C	-60°C
	(MPa)	(MPa)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
as welded	-	-	-	-	-	-	-	-

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG			
Solid wire			
TIG			
Rods			
SAW			
Submerged arc			
FCAW			
Cored wire			
SMAW			
Electrodes			