



**DATA SHEET
DS 218
Rev. 05 dd 27/09/2013
INE Ni - Fe**

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CLASSIFICATION

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

APPROVALS

ALLOY TYPE

Graphite-coated electrode for cold welding of cast iron.

APPLICATIONS

Graphite-coated electrode with nickel – iron core designed for cold welding of cast iron, grey iron (malleable), cast iron & steel coupling, ensuring high mechanical properties. Intended for all positions; suitable for machining; it has a coloring similar to cast iron. It is used for machine bases, pumps and transmission housings. The use of the lowest value of current and cleaning of the base material are recommended.

MATERIALS TO BE WELDED

ASTM		EN		Others
A 602		(DIN 1691 GG10)	(DIN 1693 G GG-50)	
A 47		(DIN 1691 GG15)	(DIN 1693 G GG-60)	
A 338		(DIN 1691 GG20)	(DIN 1692 GTS-35-10)	
A 220		(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 slight preheat at 300°C is recommended, followed by slow cooling.

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 %			
1.10	1.00	1.00	0.015	2.00	50.00	Bal.			

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
MIGMAG			
Solid wire			
TIG			
Rods			
SAW			
Submerged arc			
FCAW			
Cored wire			
SMAW			
Electrodes			