



DATA SHEET
DS 109
Rev. 6 dd 15/05/2015
INETIG B8

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CLASSIFICATION

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.28: ER80S-B8	EN ISO 21952-A: W CrMo9
AWS A 5.28M: ER55S-B8	
ASME SFA 5.28: ER80S-B8	
ASME SFA 5.28M: ER55S-B8	

APPROVALS

ALLOY TYPE

9Cr-1Mo content to be used for the welding of creep resistant steel.

APPLICATIONS

Low alloy copper-coated tig rod with 9% Cr and 1% Mo content to be used for the welding of creep resistant steel. It will find applications in power plants, chemical or petro-chemical industry and in the ammonia synthesis process. It is also used for heat exchangers, boilers, piping and pressure vessels for temperature service up to 600°C. Its corrosion resistance is higher than 5Cr-0.5Mo steels requirements.

MATERIALS TO BE WELDED

ASTM		EN		Others
A 387 Gr 9	A 336 Gr F9	(DIN X12CrMo 9-1)	(BS 3604 Gr CFS 629-470)	
A 335 Gr 9	A 217 Gr C12	(DIN X7CrMo 9-1)	(BS 3604 Gr HFS 629-470)	
A 234 Gr WP9		(DIN GS-12CrMo 10-1)	(BS 3604 Gr HFS 629-590)	
A 199 Gr T9		(BS 3100 Gr B6)	(BS 3604 Gr CFS 629-590)	
A 213 Gr T9			(BS 1504 Gr 629)	
A 182 Gr F9				

WELDING GUIDELINES

Preheat and interpass temperature 200 ÷ 250°C. PWHT at 745°C for an hour.

TECHNICAL INFORMATION

Gas: Argon 100% (EN ISO 14175)
 Welding positions: all positions



WELDING PARAMETERS

Current	DC - Straight polarity
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PACKAGING DATA

Diameter (mm)	1.2	1.6	2.0	2.4	3.2	4.0
Length (mm)	1000	1000	1000	1000	1000	1000
Carton	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg

* tolerances according to EN ISO 544 specification.



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TYPICAL CHEMICAL COMPOSITION OF WIRE

C %	Mn %	Si %	S %	P %	Cu %	Ni %	Cr %	Mo %	
0.07	0.50	0.40	0.008	0.004	0.10	-	9.00	1.00	

TYPICAL MECHANICAL PROPERTIES

GAS		Yield strength	Tensile strength	Elongation on % 5d	Impact energy (Charpy V)				
		Rs	Rm	A 5d	+ 20°C	0°C	-20°C	-40°C	-50°C
		(MPa)	(MPa)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
I1	after PWHT	660	750	19	150	-	-	-	-

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL B8	AWS A 5.28: ER80S-B8	EN 21952-A: G CrMo9
TIG Rods			
SAW Submerged arc	INESUB EB8	AWS A 5.23: EB8	EN 24598-A: S CrMo9
FCAW Cored wire			
SMAW Electrodes	INE B8	AWS A 5.5: E8016-B8	EN 3580-A: E CrMo9