



DATA SHEET
DS 108
Rev. 6 dd 14/05/2015
INETIG B6

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CLASSIFICATION

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.28: ER80S-B6	EN ISO 21952-A: W CrMo5Si
AWS A 5.28M: ER55S-B6	
ASME SFA 5.28: ER80S-B6	
ASME SFA 5.28M: ER55S-B6	

APPROVALS

TÜV		

ALLOY TYPE

5Cr-0.5Mo content to be used for the welding of creep resistant steel.

APPLICATIONS

Low alloy copper-coated tig rod with 5% Cr and 0.5% Mo content to be used for the welding of creep resistant steel. It will find applications in 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. The weld metal has also been used for subsequent nitriding in the petro-chemical industries; for example in the repair of some steels used for moulds for injection-moulding of plastics.

MATERIALS TO BE WELDED

ASTM		EN		Others
A 387 Gr 5	A 336 Gr F5	(DIN 12CrMo 19-5)	(BS 1504 Gr 625)	
A 335 Gr P5	A 217 Gr C5	(DIN X7CrMo 6-1)	(BS 3100 Gr B5)	
A 234 Gr WP5		(DIN X11CrMo 6-1)	(BS 3604 Gr HFS 625)	
A 199 Gr T5		(BS 1503 Gr 625)	(BS 3604 Gr CFS 625)	
A 213 Gr T5		(BS 1501 Gr 625)		
A 182 Gr F5				

WELDING GUIDELINES

Preheat and interpass temperature 200 ÷ 300°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	0.010	0.010	0.10	-	5.80	0.55	

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	510	630	25	200	-	-	-	-

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL B6	AWS A 5.28: ER80S-B6	EN 21952-A: G CrMo5Si
TIG Rods			
SAW Submerged arc	INESUB EB6	AWS A 5.23 EB6	EN 24598-A: S CrMo5
FCAW Cored wire			
SMAW Electrodes	INE B6	AWS A 5.5: E8016-B6	EN 3580-A: E CrMo5