

ER80S-B2

SOLID WELDING WIRE FOR TIG & MIG.

PRODUCT DESCRIPTION

Copper coated wire for TIG and MIG welding 1¼Cr-½Mo creep resisting steels, conforming to the AWS/ASME specification.

SPECIFICATIONS

AWS A5.28M ER80S-B2
BS EN ISO 21952-B 1CM

ASME IX QUALIFICATION

QW432 F-No 6
QW442 A-No 3

CHEMICAL COMPOSITION (WIRE WT %)

	C	Mn	Si	S	P	Cr	Mo	Ni	Cu
Min.	0.07	0.4	0.4	-	-	1.2	0.4	-	-
Max.	0.12	0.7	0.7	0.020	0.020	1.5	0.65	0.2	0.35
Typical	0.10	0.5	0.5	0.01	0.015	1.3	0.5	<0.1	0.10

ALL-WELD MECHANICAL PROPERTIES

PWHT 690°C/4h (AWS=620°C/1h)	Min.	Typical TIG	Typical MIG
Tensile strength (MPa)	550	635	590
0.2% proof strength (MPa)	470	520	480
Elongation (%) 4d	19	27	26
5d	17	25	20
Impact ISO-V(J) -10°C	-	>200	>115
Hardness HV	-	220	195
HB	-	215	190

TYPICAL OPERATING PARAMETERS

	Shielding gas	Current	Diameter (mm)	Parameters
TIG	Argon	DC-	2.4	100A, 12V
MIG	Ar-5%CO ₂	DC+	1.2	280A, 26V

PACKAGING DATA

Diameter (mm)	0.8	0.9	1.0	1.2	1.6	2.0	2.4	3.2
TIG	-	-	-	-	5 kg tube	5 kg tube	5 kg tube	5 kg tube
MIG	15kg reel	15kg reel	15kg reel	15kg reel	-	-	-	-

FUME DATA

MIG fume composition (wt %) (TIG fume negligible)

Fe	Mn	Cr ³	Ni	Mo	Cu	OES (mg/m ³)
55	5	0.4	<0.1	<0.5	1.2	5