CEWELD®

ER 80S-B2 Tig

CATEGORY	GMAW-GTAW Solid wires
TYPE	Copper coated welding wire for welding creep resistant ferritic steels.
APPLICATIONS	Filler metal for high temperature creep resistant 1.25%Cr0.5%Mo ferritic steel. These steels are used for creep resisting applications up to ~550°C. Typical applications in power generation plant include steam piping, turbines and boilers; the alloy also finds applications in the chemical and petro-chemical industries.
PROPERTIES	The filler metal has low levels of tramp elements (eg. Sn, As, Sb and P) providing a low Bruscato Factor (X< 10 ppm)for temper embrittlement resistant applications.
CLASSIFICATION	AWS A 5.28: ER 80S-B2 EN ISO 21952-A: B 1 CM
SUITABLE FOR	For matching 1.25%Cr0.5%Mo creep resisting ferritic steels. 13CrMo 4-5, 16CrMo 4-4, GS-17CrMo 5-5, ASTM: A182 grades F11/F12, A199/A200 T11, A217 grades WC6/WC11, A234 grades WP11/WP12, A335 grades P11/P12, A387 grades 11/12
APPROVALS	CE approved
WELDING POSITIONS:	

WELD METAL ANALYSIS %

C	Mn	Si	Cr	Cu	Mo
0.09	0.55	0.55	1.35	-	0.50

MECHANICAL PROPERTIES

Heat Treatment	$R_{P0,2}$ (N/mm^2)	Rm (N/mm^2)	4d/5d (%)	Impact Energy (J) ISO-V 20°C	-40°C	-60°C	Hardness HRc / HV
PWHT 620-690°C	> 470	> 560	> 19				

Preheat 200°C / Interpass temp; max. 300°C

WELDING PARAMETERS / PACKING

Welding Parameters		Packing (kg)	
D (mm)	Current (A) (DC-)	single	master
1.6 x 1000	50-80	5	25
2.0 x 1000	70-110	5	25
2.4 x 1000	110-180	5	25
3.2 x 1000	150-250	5	25

REDRYING TEMPERATURE	not required
GAS ACC. EN ISO 14175:	I1