

MMA Electrodes C-Mn and low-alloy steels

TENAX 76S is well suited for welding BS 4360 50D and similar steel grades used for offshore applications. Good CTOD toughness in the as welded condition for joints in plates up to approx. 50 mm thick. There are many approved welding procedures for the offshore and construction industries for this electrode. Very good toughness is obtained in the as welded condition. This electrode is of major importance for offshore work; enabling higher yield steels to be welded with absolute confidence. Efficiency 120%.

Classification	
AWS	A5.5: E 7018-G
EN	499: E 46 6 1Ni B 32 H5
EN ISO	2560-A: E 46 6 1Ni B 32 H5

Approvals	Grades
ABS	
BV	
DNV	
GL	
LRS	
RINA	

see Appendix, Classification Society Approvals, for details pag. 521

Analysis of all-weld metal (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	V	N	Cu
0.06	1.50	0.30	≤ 0.015	≤ 0.010	-	0.80	-	-	-	-	-

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)	Impact Energy ISO - V (J) -60°C	Hardness
PWHT 620°C x 1h	≥ 390	490 - 560	≥ 22	≥ 110	-
As Welded	≥ 460	530 - 680	≥ 22	≥ 90	-

Materials

S(P)235 to S(P)360; GP240-GP280

SA 516 gr.60; SA 516 gr.70; SA 106 gr.B; SA333 gr1/6.

Storage and redrying

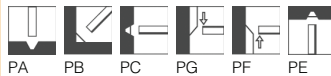
Keep dry and avoid condensation.

HD ≤ 5: Re-dry at 400-420 °C for 1 hour, 5 times max.

HD ≤ 10: Re-dry at 350-370 °C for 1 hour, 5 times max

Current condition and welding position

DC+; AC



Packaging data

Diameter (mm)	Length (mm)	Current (A)	Electrode average weight (g)	Weld metal weight per electrode (g)
2,5	300	80-100	18,3	10,9
2,5	350	80-100	21,4	12,8
3,2	350	100-140	36,6	21,3
3,2	450	100-130	47,1	27,4
4,0	450	120-180	67,4	40,4
5,0	450	180-270	102,0	63,6