

MMA Electrodes High-strength steels

TENAX 88S is a low-alloyed electrode for welding higher yield steels (min. 450N/mm²), BS 4360-55 E/F and E 450 EMZ, used for topside facilities of oil and gas production platforms. This electrode produces high impact and fracture (CTOD) tough weld metal in the as-welded and stress relieved conditions. Excellent operability in all welding positions. This electrode is of major importance for offshore applications and it enables higher yield steels to be welded in all positions. Efficiency 100%.

Classification	
AWS	A5.5: E 8016-G
EN	499: E 50 6 Mn1Ni B 12 H5
EN ISO	2560-A: E 50 6 Mn1Ni B 12 H5

Approvals	Grades
ABS	
DNV	
LRS	

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	1.60	0.30	≤ 0.015	≤ 0.015	-	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	≥ 460	560-640	≥ 26	≥ 60	-
As Welded	≥ 500	560-720	≥ 24	≥ 60	-

Materials

S(P)420-S(P)500

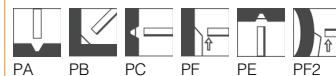
Storage and redrying

Keep dry and avoid condensation.

HD ≤ 5: Re-dry at 400-420 °C for 1 hours, 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	350	55-85	19,5	11,7
3,2	450	80-130	39,6	23,7
4,0	450	110-180	59,0	35,4
5,0	450	180-230	91,2	54,7