



# P 48S

SMAW - (Stick) - MMA  
Un-alloyed

Date: 2015-06-18  
Revision: 28

### Description:

P 48S is a basic-coated, low hydrogen, general purpose electrode for use on DC+ only, for which the outstanding all-round operability has been optimised. The smooth, soft arc, easy slag control, all-positional welding, low spatter and excellent slag release provide maximum welder-appeal. P 48S combines the good running characteristics required for general fabrication work with the exacting operability needs for pipe welding, where the fine spray transfer provides precise weld pool control and ensures an exceptionally regular and smooth root bead.

### Welding positions:



### Coating type:

Basic

### Welding current:

DC+ / (-)

### Hydrogen content / 100 g weld metal

≤ 4 ml

### Metal recovery:

120%

### Redrying temperature:

375-400 °C, 2h

### Chemical composition, wt. %

	C	Si	Mn	P	S	Cr	Ni
Min		0,40	1,00				
Typical	0,05	0,60	1,20	0,015	0,01		
Max	0,09	0,75	1,60	0,020	0,020	0,1	0,2

	Mo	Cu	V	Nb
Min				
Typical				
Max	0,1	0,2	0,05	0,05

### Mechanical properties

	<u>Specified</u>	<u>Typical</u>	<u>PWHT Typical</u>
Yield strength, Re:	≥420 MPa	530 MPa	490 MPa
Tensile Strength, Rm:	510-640 MPa	600 MPa	580 MPa
Elongation, A5	≥ 22%	26%	29%
Impact energy, CV:	-40 °C • 47 J -46 °C • ≥27 J	-40 °C • 60 J -46 °C • 40 J	-20 °C • 130 J 600°C x1h

### Produkt data:

Diam.mm	Length mm	Product code	Current A	Voltage V	Kg weld metal/ kg electrodes	No. of electrodes/ kg weld metal	Kg weld metal/ hour arc time	Burn-off time/ electrode (sec.)
1,6	300	71481620	30-60	23	0,65	170	0,5	46
2,0	300	71482020	40-80	23	0,64	115	0,7	43
2,5	350	71482520	80-110	23	0,71	60	1,0	54
3,2	450	71483220	110-155	24	0,72	28	1,6	76
3,2	350	71483520	110-165	24	0,72	36	1,6	57
4,0	450	71484020	140-205	25	0,74	19	2,1	82
5,0	450	71485020	200-285	25	0,75	13	2,9	91

### Classification:

EN ISO 2560-A E 42 4 B 42 H5  
AWS A5.1 E 7018-1H4

### Approvals:

CE  
TÜV  
BV 3 3Y HH  
GL 3Y H5  
ABS 3, 3Y  
DB Kennblatt Nr 10.042.01  
DNV 3YH5  
MRS 3Y 40 H5  
LR 3m, 3Ym, H5

### Note

Core wire:  
S ≤ 0.015%  
P ≤ 0.015%  
N ≤ 0.008%