



P 65MR

SMAW - (Stick) - MMA
Low-alloyed

Date: 2008-11-04
Revision: 17

Description:

P 65MR is a basic-coated low hydrogen electrode producing a nominal 0.9% Ni weld metal with molybdenum addition, designed for welding steels with a minimum yield strength of 450 MPa e.g. BS 7191-450 EM, BS 4360-55E/F and similar materials, used in offshore fabrication etc.

P 65MR gives a minimum yield strength of 560 MPa, minimum tensile strength of 610 MPa and has excellent fracture toughness down to -60 °C. It is an AC/DC, all-positional electrode producing a finely rippled bead surface and good slag detachability. Electrode sizes 3,2x350 mm also available with a thin coating, "tc", ideally suited for root pass welding and joints with restricted access.

Welding positions:



Coating type:

Basic

Welding current:

DC +/-, AC OCV ≥ 70 V, For root passes: DC -

Hydrogen content / 100 g weld metal

≤ 5 ml

Metal recovery:

110-120%

Redrying temperature:

350 °C, 2h

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0,20	1,40				0,7
Typical	0,06	0,4	1,6	0,01	0,005		0,8
Max	0,08	0,50	1,70	0,015	0,015	0,1	1,0

	Mo	Cu	V	Nb
Min				
Typical	0,15			
Max	0,20	0,2	0,05	0,05

Mechanical properties

	<u>Specified</u>	<u>Typical</u>	<u>PWHT Typical</u>
Yield strength, Re:	≥500 MPa	610 MPa	590 MPa
Tensile Strength, Rm:	560-720 MPa	650 MPa	≥630 MPa
Elongation, A5	≥ 19%	22%	≥ 19%
Impact energy, CV:	-60 °C • ≥47 J	-60 °C • 60 J	-40 °C • ≥60 J

Classification:

EN 499 / EN 757	E 50 6 Mn 1 Ni B 32 H5
EN ISO 2560-A	E 50 6 Mn 1 Ni B 32 H5
AWS A5.5	8018-G

Approvals:

DNV	5Y 46 H5
CE	
LR	5Y 46 H5

Note

PWHT 600 °C, 1h
Part no. 7165-2500 and 7165-3250: thin coating.

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

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.)
2,5	350	71652500	60-110	22	0,71	71	0,8	56
3,2 tc	350	71653250	80-155	23	0,74	42	1,3	53
3,2	350	71653235	80-150	24	0,68	37	1,4	57
3,2	450	71653200	80-150	24	0,68	31	1,5	79
4,0	450	71654000	140-200	24	0,72	20	1,9	85
5,0	450	71655000	200-270	24	0,73	13	2,6	101