P 110MR

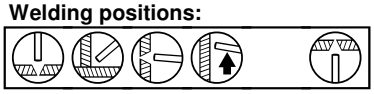
SMAW - (Stick) - MMA

Low-alloyed

Date: 2013-11-26
Revision: 21

Description:
P 110MR is a basic-coated low hydrogen electrode specially designed for welding high-strength low-alloy quenched and tempered steels with a yield strength of 700 MPa. The weld metal combines very high strength properties with good fracture toughness at temperatures down to -60°C.
P 110MR is an all-positional electrode with strong welder-appeal and produces mechanical properties highly suitable for applications such as mobile jack-up rigs and submarine construction.

Welding positions:



Coating type:
Basic

Welding current:
DC+/(-), AC OCV ≥ 70 V

Hydrogen content / 100 g weld metal
≤ 5 ml

Metal recovery:
120%

Redrying temperature:
350 °C, 2h

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0,20	1,50				1,6
Typical	0,05	0,40	1,70	0,010	0,007	0,35	2,2
Max	0,08	0,60	1,90	0,020	0,015	0,45	2,5

	Mo	Cu	V	Nb
Min	0,20			
Typical	0,25	0,60		
Max	0,40	0,70	0,05	0,05

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:	≥ 690 MPa	740 MPa
Tensile Strength, Rm:	760-960 MPa	790 MPa
Elongation, A5	≥ 17%	20%
Impact energy, CV:	-60°C • ≥47 J	-40°C • 80 J
		-60°C • 70 J

Classification:

EN ISO 18275	~E 69 6 Mn2NiCrMo B 32 H5
AWS A5.5	E 11018-G

Approvals:

CE	
LR	4Y69
ABS	4YQ690

Note

EN: Slight deviation in Mo.

ABS: 55J@ -60C
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	71602500	70-110	22	0,7	66	0,9	52
3,2	450	71603200	100-150	24	0,7	29	1,4	81
3,2	350	71603235	100-150	24	0,7	35	1,4	55
4,0	450	71604000	135-200	24	0,72	19	1,9	93