



Elgacore DWA 55Ni1

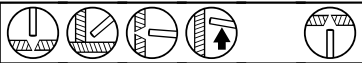
FCAW - Flux cored arc welding
Low-alloyed

Date: 2009-02-19
Revision: 4

Description:

Elgacore DWA 55Ni1 is a rutile flux cored wire producing a nominal 0.9%Ni, micro-alloyed weld metal, for use in severely demanding applications such as offshore fabrication. The wire runs with a smooth but forceful arc and exhibits exceptional all-positional operability combined with high productivity. Elgacore DWA 55Ni1 offers a universal flux cored wire to a broad range of users requiring NACE conformity, very good fracture toughness in both the as-welded and stress relieved condition, and reliable CTOD values.

Welding positions:



Welding current:

DC+

Deposition efficiency:

87%

Shielding gas:

M21, 80% Ar + 20% CO₂, 22-25 l/min

Stick-out:

15-25 mm

Hydrogen content / 100 g weld metal

≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0.02	1.05				0.8
Typical	0.05	0.3	1.25	0.007	0.007	0.015	0.95
Max	0.12	0.80	1.40	0.03	0.03	0.15	1.0

	Mo	Cu	V	Nb
Min				
Typical	0.01	0.004	0.015	0.016
Max	0.20	0.30	0.05	0.05

Mechanical properties

	<u>Specified</u>	<u>Typical</u>	<u>PWHT Typical</u>
Yield strength, Rp0.2%:	> 470 MPa	550 MPa	510 MPa
Tensile Strength, Rm:	550-680 MPa	610 MPa	570 MPa
Elongation, A5	> 20%	28%	29%
Impact energy, CV:	-60°C • 47 J	-60°C • 75 J	-40°C • 75 J 580°C X 2 h

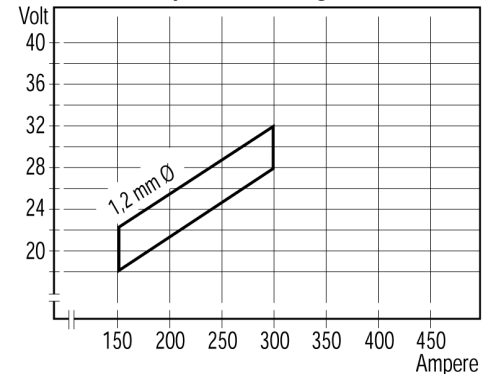
Classification:

EN 758 T 46 6 1Ni P M 2 H5
AWS A5.29 E81T1-Ni1MJ
ISO 17632-A T 46 6 1Ni P M 2 H5

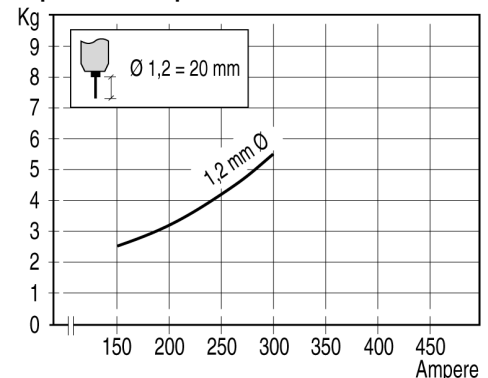
Approvals:

DNV V Y42MS H5
LR 5 Y42S H5

Recommended parameter range:



Deposition rate per hour:



Product data:

Diam.mm	Product code	Spool weight
1,2	95592012	15 kg D300
1,2	95592112	5 kg D200

Note

Strip:
S ≤ 0.012%
P ≤ 0.015%
N ≤ 0.004%
PWHT: 580°C +/- 10°C, 2 h.