



Elgacore DWA 55L

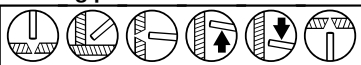
FCAW - Flux cored arc welding
Low-alloyed

Date: 2009-02-19
Revision: 13

Description:

Elgacore DWA 55L is a rutile flux cored wire designed to meet extremely high weld integrity demands in applications such as offshore fabrication. The micro-alloyed design, in combination with the 1.5% Ni alloying level, produces exceptionally good fracture toughness down to -60°C . Impact strength is tolerant to a wide range of heat-input and preheat/interpass conditions. The all-positional wire operates with a smooth but forceful arc to give very good penetration characteristics when welding horizontally, combined with high deposition rates when welding vertically up. Elgacore DWA 55L is extensively CTOD tested from -10°C down to -40°C . Results from 50 & 60mm plate thickness show CTOD values of 0.40 - 0.80mm at -40°C .

Welding positions:



Welding current:

DC+

Deposition efficiency:

87%

Shielding gas:

M21, 80% Ar + 20% CO_2 , 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			0.50				1.2
Typical	0.04	0.3	1.4	0.01	0.01		1.5
Max	0.15	0.80	1.60	0.03	0.03	0.15	1.8

	Mo	Cu	V	Ti	B	Nb
Min					0.002	
Typical				0.05	0.004	
Max	0.20	0.30	0.05		0.005	0.05

Mechanical properties

	<u>Specified</u>	<u>Typical</u>
Yield strength, Re:	≥ 470 MPa	550 MPa
Tensile Strength, Rm:	550-680 MPa	620 MPa
Elongation, A5	$\geq 20\%$	27%
Impact energy, CV:	$-60^{\circ}\text{C} \cdot 47$ J	$-60^{\circ}\text{C} \cdot 75$ J

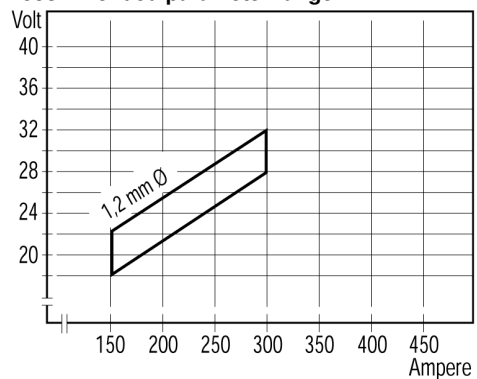
Classification:

EN 758 T 46 6 1,5 Ni P M 1 H5
AWS A5.29 E 81T1-K2M
ISO 17632-A T 46 6 1,5 Ni P M 1 H5

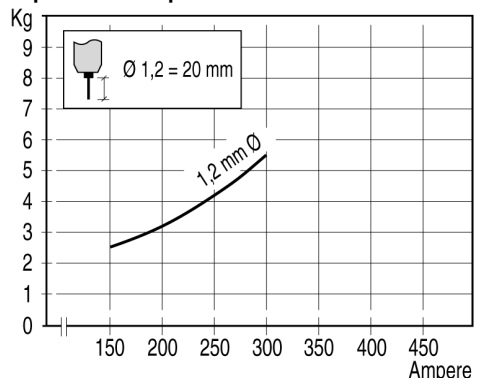
Approvals:

LR 5Y46S H5
ABS 3 YSA
GL 4 YS
DNV V Y46MS H5
MRS 4YMS HHH
TUV 10072.00
DB 42.042.13
NAKS
CE

Recommended parameter range:



Deposition rate per hour:



Product data:

Diam.mm	Product code	Spool weight
1,0	95612010	12,5 kg D300
1,2	95611012	15 kg BS300
1,2	95612012	15 kg D300
1,2	95612112	5 kg D200

Note

Strip:
 $S \leq 0.012\%$
 $P \leq 0.015\%$

$N \leq 0.004\%$