



# Cromacore DW 309MoL

FCAW - Flux cored arc welding  
Stainless Steel

Date: 2007-05-25  
Revision: 13

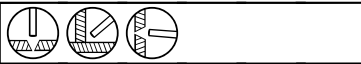
## Description:

Cromacore DW 309MoL is a rutile flux cored wire which deposits a 23% Cr/13% Ni/ 2,5% Mo stainless steel weld metal with a ferrite content of approximately FN 22. The high alloy content and high ferrite level enable the weld metal to tolerate dilution from dissimilar and difficult-to-weld steels without cracking. The wire operates with a very stable, spatter free arc to produce a bright, smooth weld bead surface and self-releasing slag. Cromacore DW 309MoL is used mainly for downhand and horizontal-vertical welding and is ideal for standing fillets.

## Applications:

Dissimilar joints between stainless and mild, low alloy or medium carbon steels.  
Buffer layers on mild and low alloy steels prior to overlaying with Cromacore DW 316L/LP.  
Interface runs on 316L clad steels.  
Joining of medium carbon hardenable steels eg. armour plate.

## Welding positions:



## Welding current:

DC+

## Deposition efficiency:

87%

## Shielding gas:

M21, 80% Ar + 20% CO<sub>2</sub>, 22-25 l/min  
C1, 100% CO<sub>2</sub>, 22-25 l/min

## Stick-out:

15-25 mm

## Ferrite content:

FN 22

## Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			22.0	12.0
Typical	0.02	0.7	1.3	0.024	0.009	23.0	12.9
Max	0.04	1.0	2.5	0.030	0.025	25.0	14.0

	Mo	Cu	V	Nb
Min	2.0			
Typical	2.4	0.11	0.1	0.08
Max	3.0	0.5	0.2	0.1

## Mechanical properties

	<u>Specified</u>	<u>Typical</u>
Yield strength, Rp0.2%:		540 MPa
Tensile Strength, Rm:	≥ 550 MPa	710 MPa
Elongation, A5	≥ 25%	30%
Impact energy, CV:		0°C • 29 J

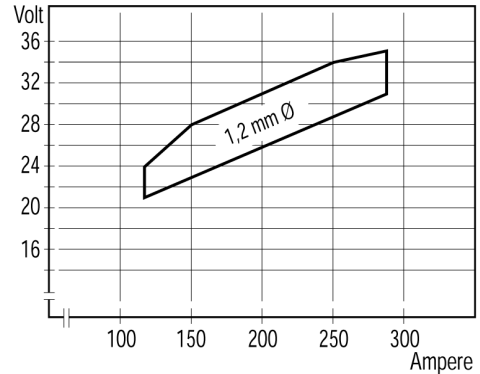
## Classification:

AWS A5.22 E 309LMoT0-4/-1  
ISO 17633-A T 23 12 2 L R M/C 3  
Werkstoff no. 1.4459

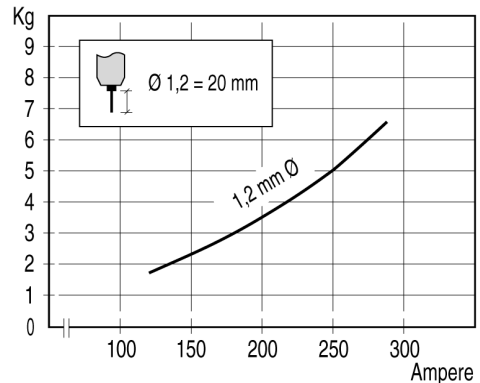
## Approvals:

LR SS/CMn S  
DNV 309MoL  
GL 4459S  
TÜV 07383.04  
CE

## Recommended parameter range:



## Deposition rate per hour:



## Product data:

Diam.mm	Product code	Spool weight
1,2	95731012	15 kg BS300
1,2	95731112	5 kg BS200

## Note

Strip:  
S ≤ 0.03%  
P ≤ 0.04%  
N ≤ 0.06%