



Product Data Sheet

E 'Manual metal-arc welding'

OK 68.81

Prepared by A-C Thorsson	Qualified by Tero Borg	Approved by Tapio Huhtala	Reg no EN007149	Cancelling EN007138	Reg date 2016-03-10	Page 1 (2)
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REASON FOR ISSUE

CE approval added.

GENERAL

High alloy stainless electrode of unusual versatility, giving a ferritic-austenitic duplex weld metal with an approximate ferrite content of FN 40.

The weld metal is resistant to stress corrosion attack and highly insensitive to dilution by melted parent metal.

Applications: joining of HWT steels, dissimilar steels, surfacing rails, rolls, forging dies, hot work tools, dies for plastics etc.

Good scaling resistance up to 1150 °C.

Min AC OCV: 60

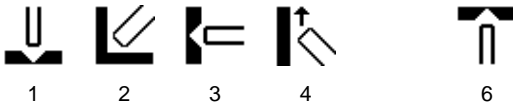
Polarity: DC+, AC

Alloy Type: Stainless duplex

Coating Type: Acid Rutile

Ferrite Content: FN 30 - 50

WELDING POSITIONS



CLASSIFICATIONS Electrode

EN 14700

E Fe11

EN ISO 3581-A

E 29 9 R 3 2

SFA/AWS A5.4

E312-17

Werkstoffnummer

1.4337

APPROVALS

CE

EN 13479

APPROVALS (SPECIFIC)

Sepro

UNA 272580

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C	0.08	0.15	
Si	0.50	1.00	
Mn	0.5	1.0	
P		0.030	
S		0.020	
Cr	28.0	30.0	
Ni	9.0	10.5	
Mo		0.5	
Cu		0.3	
N		0.15	
Ferrite FN			40



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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO		AWS	
	Min	Typ	Min	Typ
As welded				
Rp0.2 (MPa)	450	610	450	610
Rm (MPa)	660	790	660	790
A4 (%)			22	25
A5 (%)	20	22		
Z (%)		40	30	40
Charpy V at 20°C (J)		30		30

Comments:

Interpass temperature < 150 °C.

Hardness: 220-240 HV.

ECONOMICS & CURRENT DATA

Dimension (mm) Ø x Length	Current (A)		W	η	N	B	H	T	U	Welding Positions
	Min	Max								
2.0 x 300	40	60	1.3	125	0.64	123	0.7	41	22	1,2,3,4,6
2.5 x 300	50	85	2.0	125	0.64	78	0.9	48	24	1,2,3,4,6
3.2 x 350	60	125	3.9	125	0.62	42	1.3	65	25	1,2,3,4,6
4.0 x 350	80	175	5.9	125	0.62	26	2.0	66	26	1,2,3
5.0 x 350	150	240	9.4	125	0.65	17	3.2	68	28	1,2

W = Weight (kg / 100 electrodes)

η = Efficiency (g weld metal x 100 / g core wire)

N = Effective value (kg weld metal / kg electrodes)

B = Changes (number of electrodes / kg weld metal)

H = Deposit rate at 90% of max current (kg weld metal / hour arc time)

T = Fusion time at 90% of max current (s / electrode)

U = Arc voltage (V)

OTHER DATA

The mechanical properties are highly depending on the grain size of the weld metal microstructure.

Welding parameters resulting in coarse-grained structure can lead to considerably reduced ductility.

Redrying: 350 °C, 2h.