Product Data Sheet

E 'Manual metal-arc welding'

OK 68.82

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	Tero Borg	Tapio Huhtala	EN007139	EN005981	2016-02-25	1 (2)

REASON FOR ISSUE

Product description amended. Ferrite content range revised. Ferrite FN and N added under Chemical Composition.

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, welding steels of poor weldability eg spring steels, surfacing rails, rolls forging die hot work tools, die for plastics, etc. Good scaling resistance up to 1150 °C.

Min AC OCV: 55

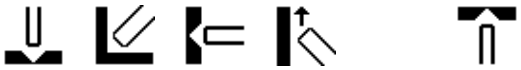
Polarity: DC+, AC

Alloy Type: Stainless duplex

Coating Type: Acid Rutile

Ferrite Content: FN 30 - 50

WELDING POSITIONS



1 2 3 4 6

CLASSIFICATIONS Electrode

EN 14700	E Fe11
EN ISO 3581-A	E 29 9 R 1 2
SFA/AWS A5.4	(E312-17)
Werkstoffnummer	1.4337

APPROVALS

CE	EN 13479

APPROVALS (SPECIFIC)

Seproz	UNA 272580

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C	0.08	0.15	
Si	0.70	1.20	
Mn	0.5	1.2	
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

	ISO		AWS	
	As welded		As welded	
Properties	**Min**	**Typ**	**Min**	**Typ**
Rp0.2 (MPa)	450	500	450	500
Rm (MPa)	660	750	660	750
A4 (%)			22	25
A5 (%)	20	23		
Z (%)		40	30	40
Charpy V at 20°C (J)				40

Comments:

Interpass temperature < 150 °C.

Hardness: 220-240 HV.

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding
Ø x Length	Min	Max								Positions
2.0 x 300	40	60	1.1	105	0.54	166	0.7	33	26	1,2,3,4,6
2.5 x 300	50	85	1.8	105	0.52	104	1.0	45	25	1,2,3,4,6
3.2 x 350	55	120	3.6	105	0.52	55	1.3	57	26	1,2,3,4,6
4.0 x 350	75	170	5.2	105	0.55	36	2.0	60	30	1,2,3

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: 300°C, 2h.