

SSAB

Welding Consumables

**FOR HARDOX®
WEAR PLATE**Stainless steel stick electrode
for Hardox® wear plate
Manual metal-arc welding
Data Sheet
2018-10-30

Stainless steel stick electrode for Hardox® wear plate

Manual metal-arc welding

GENERAL PRODUCT DESCRIPTION

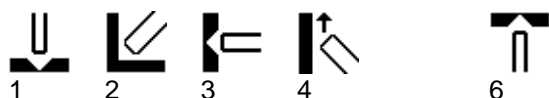
An austenitic stainless steel electrode giving a weld metal of the 20Cr-10Ni-5Mn type. The tough weld metal imparts excellent crack resistance.

KEY BENEFITS

- Developed especially for avoiding hydrogen cracks
- Excellent performance in Hardox® wear plate
- Stable arc with very low amount of spatter
- Possible to weld directly on primed surface
- Very high resistance of hot cracks
- Excellent for buffer layers before hard facing with Duroxite

Polarity: AC, DC+
Min AC OCV: 70**Alloy Type:** Austenitic Cr-Ni-Mn
Coating Type: Rutile

WELDING POSITIONS

**CLASSIFICATIONS Electrode**
SFA/AWS A5.4 E307-16 (Nearest)**APPROVALS**
Not applicable

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C	0.04	0.14	0.04
Si		1.00	0.60
Mn	3.30	4.75	5.10
P		0.04	0.030
S		0.03	0.010
Cr	18.00	21.50	20.50
Ni	9.00	10.70	10.50
Mo	0.50	1.50	0.60
Cu		0.75	0.10

Comments: As per E307-16

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MECHANICAL PROPERTIES OF WELD METAL

Properties	AWS	
	As welded	
	Min	Typ
Rp0.2 (MPa)		450
Rm (MPa)	590	610
A4 (%)	30	45

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding Positions
	Min	Max								
Ø x Length										
2.5 x 350	60	100								1,2,3,4,6
3.15 x 350	80	120								1,2,3,4,6
4.0 x 350	120	170								1,2,3,4,6
5.0 x 350	160	210								1,2,3,4,6

- 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

Redrying: 250°C, 2h.
Metalized Tip

For fast and easy calculations of heat input and mechanical properties please use the Weldcalc downloadable app available for Iphone/Android or run it from the web on <https://extern.ssab.com>

For more information also see Welding of Hardox® available from www.ssab.com/download-center