

Product Data Sheet

E 'Manual metal-arc welding'

Former OK 84.78

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	Tero Borg	Tapio Huhtala	EN007055	EN006242	2016-02-15	1 (2)

REASON FOR ISSUE

Information under Other Data revised.

GENERAL

Electrode giving a weld metal with coarse chromium carbides in an austenitic matrix. Suitable for surfacing worn parts in earth-moving equipment, sand pumps, mixers, feed screws, dust extractors, crushers etc exposed to wear by coal, ores and other minerals. Also in corrosive environment and/or elevated temperature.

Min AC OCV: 50 Polarity: AC, DC+

Alloy Type: Carbide rich steel Coating Type: Rutile Basic

WELDING POSITIONS



EN 14700

CLASSIFICATIONS Electrode

E Z Fe14

APPROVALS

Not applicable

CHEMICAL COMPOSITION

	All Weld Metal (%)				
	Min	Max			
C Si Mn P S Cr Ni Mo	3.5 0.50 29.5	5.5 1.10 1.6 0.04 0.03 36.5 0.1 0.1			

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	Ν	в	н	т	U	Welding
Ø x Length	Min	Max								Positions
2.5 x 350	90	120	3.4	180	0.62	48	1.2	60	24	1,2
3.2 x 350	115	170	6.3	190	0.62	26	1.6	85	24	1,2
4.0 x 450	130	210	11.4	180	0.64	14	2.0	135	26	1,2
5.0 x 450	150	300	17.8	185	0.64	9	2.9	140	26	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)



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OTHER DATA

Hardness, typical as welded:

3-layer 59-63 HRC (no preheat and interpass temp. 100 $^{\circ}\text{C}\textsc{)}.$

3-layer 55-61 HRC (preheat and interpass temp. ca 500 $^\circ\text{C}\textsc{)}.$

Tempering resistance:

Hardness at room temperature after 1 hour tempering in the range 100-700 °C, 3-layer weld. Diameter 4 mm electrode.

°C.....HRC 10058 30059 40057 49059 60057 70058

Machinability: Grinding only Abrasion resistance: Excellent High temperature wear resistance: Good Corrosion resistance: Excellent

Redrying: 300 °C for 2 h.