

Prepared by David P	Qualified by Siva P	Approved by Umesh M	Reg no EN007139	Cancelling EN005981	Reg date 2023-06-26	Page 1 (2)
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GENERAL

EWAC ST 202 NT is nickel-chromium-iron superalloy, for welding of similar alloys and dissimilar and complicated steel joining and cladding. Clad side of joints on steel clad with nickel-chromium-iron alloy, and for surfacing steel with nickel-chromium-iron weld metal. The electrode may be used for applications at temperatures ranging from cryogenic to about 480°C. Typical specifications for the nickel-chromium-iron base metal are ASTM B163, B166, B167, and B168, all of which have UNS Number N06600. These electrodes can also be used for welding steel to other nickel-base alloys..

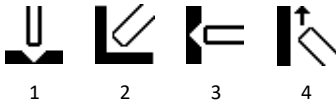
Min AC OCV: NA

Polarity: DC+

Alloy Type: Ni based Super-alloy

Coating Type: Basic

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.11 : ENiCrFe-3

EN ISO 14172 : E Ni 6182 (NiCr15Fe6Mn)

APPROVALS

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.10	
Si		1.0	
Mn	5.0	9.5	
P		0.030	
S		0.015	
Cr	13	17	
Nb	1	2.5	
Fe		10.0	
Ti		1.0	
Ni	59 min		

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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO		AWS	
	As welded Min	Typ	As welded Min	Typ
Rp0.2 (MPa)	360	390		390
Rm (MPa)	550	620	550	620
A4 (%)			30	43
A5 (%)	27	40		
Z (%)				
Charpy V at 20°C (J)				
Charpy V at -196°C (J)				

Comments:

Interpass temperature < 150 °C

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding Positions
Ø x Length	Min	Max								
2.5 x 350	50	80								
3.15 x 350	70	100								
4.0 x 350	90	130								

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: 280°C, 2h.