

Prepared by Adriana Draganoi	Qualified by P-O Oskarsson	Approved by Tapio Huhtala	Reg no EN008858	Cancelling EN008421	Reg date 2020-01-20	Page 1 (2)
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REASON FOR ISSUE

Product name changed. Limits for chemical composition and mechanical properties. Nominal values amended.

GENERAL

Exaton 20.25.5.LCuR is a covered electrode with type with rutile-basic coating and normal recovery, used for welding of high-alloy austenitic stainless of UNS N08904 type, also known as 904L (e.g. Sandvik 2RK65).

Exaton 20.25.5.LCuR gives a fully austenitic chromium-nickel-molybdenum weld metal with especially low carbon content and copper addition. Spray transfer gives a bead with a finely rippled surface, little spatter and good slag removal.

It is suitable for joining steels of the 20Cr/25Ni/4.5Mo/1.5Cu type such as 2RK65 and 904L used in many areas of the process industry, such as in the production of acetic acid, sulphuric acid, terephthalic or tartaric acid and vinyl chloride as well as other chloride containing media. It is also suitable for use in cooling operations involving sea water or heavily polluted river water.

Exaton 20.25.5.LCuR may also be used to join 317L where improved corrosion resistance in specific media is required. These electrodes may be used to join 2RK65, 904L, and 317L to other grades of stainless steel.

Min AC OCV: 65

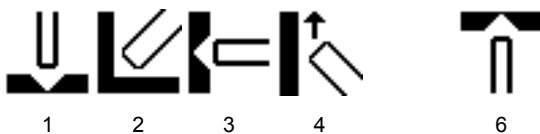
Polarity: AC, DC+

Alloy Type: Austenitic CrNiMo

Coating Type: Basic Rutile

Ferrite Content: FN 0

WELDING POSITIONS



CLASSIFICATIONS Electrode

EN ISO 3581-A E 20 25 5 Cu N L R 3 2

SFA/AWS A5.4 E385-16

Werkstoffnummer 1.4519

APPROVALS

CE EN 13479

VdTÜV 02805

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.03	0.03
Si	0.20	0.70	0.5
Mn	1.0	1.5	1
P		0.030	0.019
S		0.020	0.005
Cr	19.5	21.5	20
Ni	24.0	26.0	25
Mo	4.20	5.20	4.7
Cu	1.2	2.0	1.5
N	0.05	0.15	0.10
PREN			36
FN WRC-92			0

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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO	
	Min	Typ
As welded		
Rp0.2 (MPa)	370	410
Rm (MPa)	530	590
A5 (%)	25	35
Charpy V at 20°C (J)		65

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding Positions
\varnothing x Length	Min	Max								
2.5 x 300	60	85	1.8	110	0.60	91	0.9	44	24	1,2,3,4,6
3.2 x 350	85	130	4.2	120	0.58	41	1.5	60	27	1,2,3,4
4.0 x 350	95	180	6.6	115	0.51	30	1.9	64	29	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

Hardness: 190 - 230 HV10

Corrosion resistance

It is resistant to intergranular corrosion and passes tests according to ISO 3651-2, method A (earlier DIN 50 914).

Pitting corrosion: It passes tests according to ASTM AG48, practice A at +25°C.

Thermal data:

Interpass temperature: <150°C (300°F)

Heat Input: < 1.0kJ/mm

Packaging: The electrodes are delivered in VacPac.

Redrying: 250°C (482°F), 2h.