

EXATON Product Data Sheet

G 'Gas-shielded metal-arc welding'

Exaton 22.8.3.LSi

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Per-Ake Bjornstedt	P-O Oskarsson	Per-Ake Bjornstedt	EN009089	EN008884	2020-02-04	1 (2)

REASON FOR ISSUE

Product Description amended.

GENERAL

Exaton 22.8.3.LSi is designed for gas shielded arc welding and particularly MIG welding of duplex stainless steels, such as Sandvik SAF 2205 and Sandvik SAF 2304. Its corrosion resistance is equal to ASTM 904L in most applications. It combines high strength with excellent ductility. Exaton 22.8.3.LSi can also be used for joining Sandvik SAF 2205 or Sandvik SAF 2304 to carbon steel or low-alloy steels. It is used for MIG/MAG welding.

CLASSIFICATIONS Wire Electrode

EN ISO 14343-A 22 9 3 N L
SFA/AWS A5.9 ER2209

APPROVALS

CE EN 13479
VdTÜV 04620

CHEMICAL COMPOSITION

All Weld Metal (%) Wire/Strip (%)

	Max	Nom	Min	Max	Nom
C	0.020	0.01		0.020	0.012
Si		0.8			0.8
Mn		1.5	1.3	1.9	1.5
P		0.02		0.020	0.018
S	0.015	0.001		0.0015	0.0007
Cr		23	22.6	24	23
Ni		8.5	8	9.5	8.6
Mo		3.1	3.1	3.5	3.2
W		0.01		0.2	0.01
Co					0.04
V					0.05
Nb		0.01		0.05	0.01
Cu		0.1		0.3	0.09
Ti					0.003
N		0.16	0.14	0.2	0.15
PRE		35.8	35.0		37
FN WRC-92		54			55

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	As welded	
	Min	Typ
Rp0.2 (MPa)	550	550
Rm (MPa)	760	770
A5 (%)	15	30
Charpy V at 20°C (J)		110
Charpy V at -20°C (J)		105
Charpy V at -46°C (J)		95
Charpy V at -50°C (J)		90

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ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed			U
	Min	Max			Min	Max	Min	Max	Min	Max
\emptyset			Nom	Nom						
0.8	40	120	12.0				4	8	15	19
1.0	60	220	12-18				4	12	15	28
1.2	150	260	18.0				3	10	24	29

W = Gas consumption (l / min)

η = Recovery, g weld metal / 100g wire (%)

H = Deposit rate (kg weld metal / hour arc time)

Feed = Feeding rate (m/min)

U = Arc voltage (V)

OTHER DATA

CORROSION RESISTANCE: Exaton 22.8.3.LSi is resistant to intergranular and pitting corrosion. It also has good resistance to stress corrosion cracking, especially in environments containing H₂S.

RECOMMENDED WELDING DATA:

Electrode positive is used to give good penetration in all types of welded joint.

Exaton can provide recommendations for shielding gases.

Short-arc welding is used with light gauge material of less than about 3 mm, in depositing root runs, and in welding out-of-flat positions.

The higher the inductance in short-arc welding, the higher the fluidity of the molten pool.

Spray-arc welding is normally used for heavier gauge material.

WELD METAL CHARACTERISTICS: Exaton 22.8.3.LSi gives an austenitic-ferritic (duplex) microstructure with approximately 50FN according to the WRC-92 diagram.