

ZERON® 100X

SAW

SOLID WELDING WIRE FOR SUPERDUPLEX STEELS

PRODUCT DESCRIPTION

Solid wire for sub-arc welding.

For applications where Zeron® 100X wire is to be used for welding supermartensitic stainless steels it is possible for wire to be supplied with a total hydrogen content of 3ppm maximum.

CLASSIFICATIONS

AWS A5.9M	ER2594
ISO 14343-A	S 25 9 4 N L
Weir Materials	MDS 12809/07
Approvals	ABS, TÜV, DNV (in conjunction with SSB flux)

ASME IX QUALIFICATION

QW432	F-No 6
QW442	A-No 8

CHEMICAL COMPOSITION (WIRE WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	W	Cu	N	PRE _N	PRE _W
Min.	--	--	--	--	--	24.0	9.0	3.5	0.5	0.5	0.2	40	40
Max.	0.03	1.0	1.0	0.01	0.03	26.0	10.0	4.0	1.0	1.0	0.3	--	--
Typical	0.015	0.7	0.4	0.002	0.02	25	9.3	3.7	0.6	0.7	0.23	41	42

ALL-WELD MECHANICAL PROPERTIES

As welded	Min.	Typical with SSB flux
Tensile strength (MPa)	760	885
0.2% proof strength (MPa)	550	700
Elongation (%) 4d	15	26
5d	20	24
Reduction of area (%)	--	48
Impact ISO-V(I) -50°C	--	40
Hardness cap/mid (HV)	--	290

TYPICAL OPERATING PARAMETERS

Flux	Current	Diameter (mm)	Parameters
SSB flux	DC+	1.6	350A,30V

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
2.4	25	B415	SAZ100X-24

SSB

SAW

SUB-ARC FLUX

PRODUCT DESCRIPTION

Agglomerated basic non-alloying flux for submerged arc welding.

CLASSIFICATIONS

ISO 14174 SA AF2 DC

ASME IX QUALIFICATION

QW432 F-No --

QW442 A-No --

COMPOSITION [TYPICAL]

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	W	N
Zeron® 100X wire	0.015	0.7	0.4	0.002	0.023	25	9.3	3.7	0.7	0.7	0.23
Deposit	0.02	0.6	0.4	0.002	0.02	24.5	9.3	3.6	0.7	0.7	0.21

ALL-WELD MECHANICAL PROPERTIES WITHZERON® 100X WIRE

Typical values as welded			min
Tensile strength (MPa)			750
0.2% proof strength (MPa)			550
Elongation (%) 4d			--
5d			25
Reduction of area (%)			24
Impact ISO-V(J) - 50°C			--
Hardness (HV)			40
			290

OPERATING PARAMETERS

Current: DC +ve ranges as below:

Diameter (mm)	amp-volt range	typical	stickout
1.6	200-350A, 27-31V	300A, 28V	20-25mm
2.4	250-450A, 28-32V	350A, 29V	20-25mm

PACKAGING DATA

Weight (kg)	Packaging	Item number
20	DRUM	SASSB