

Jungo® SD 2509

Stainless steel electrode

Classification

AWS A 5.4-92 : E2553-15*
EN 1600-97 : E 25 9 4 N L B 42

* Deviation: see remarks

Temperature Range

pressure parts: -20 ... +250°C
oxidation resistance: n.a.

General description

A fully basic all position "super duplex" electrode
For welding "super duplex" 25% Cr stainless steel grades
High resistance to pitting and crevice corrosion, e.g. in seawater; PREN > 40
High strength and reliable impact toughness
Good weldability on DC+ polarity
Only available in vacuum sealed Sahara ReadyPack® (SRP)

Welding positions



ISO/ASME PA/1G PB/2F PC/2G PF/3G up PE/4G PF/5G up

Current type

DC electr. + / -

Approvals

Chemical composition (w%), typical, all weld metal

C	Mn	Si	Cr	Ni	Mo	N	FN
0.025	1.7	0.6	25.0	9.0	3.4	0.2	30-60

Mechanical properties, all weld metal

Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) -40°C
Required: AWS A5.4-92	not required	min. 760	min. 15	not required
EN 1600-97	min. 550	min. 620	min. 18	not required
Typical values	AW 750	870	25	45

Packaging, available sizes and identification

Diameter (mm)	2.5	3.2	4.0	
Length (mm)	350	350	350	
Unit: SRP	Pieces / unit (nominal)	69	55	30
	Net weight/unit (kg)	1.4	1.8	1.5

Identification Imprint: 2553-16 /Jungo SD 2509 Tip colour: white

Jungo® SD 2509: rev. EN 15

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SMAW

Materials to be welded

Steel grades	EN 10088-1/-2	E 102 13-4	W.Nr.	ASTM / ACI A276/A351/A473	UNS
Regular and Super duplex stainless steel	X2CrNiMoN 25-7-4		1.4410 1.4460 1.4462 1.4463	2205	S31803
	X4 CrNiMoN 27-5-2			CD-4MCu Zeron 100™	S32550 S32760
	X2 CrNiMoN 22-5-3	GX6 CrNiMo 24-8-2			

Super duplex stainless steel grades: chemical composition approximately:
24-27% Cr, 6-9% Ni, 3-4% Mo, 0.10-0.25% N alloyed also with Cu and/or W (Zeron 100™)

Calculation data

Sizes Diam. x length (mm)	Current range type (A)	Current	Arc time - per electrode at max. (s)*	Energy E(kJ)	Dep.rate H(kg/h)	Weight/ 1000 pcs. (kg)	Electrodes/ kg weldmetal B	kg Electrodes/ kg weldmetal 1/N
2.5 x 350	45 - 70	DC+	74	101	0.62	21.0	78	1.64
3.2 x 350	70 - 100	DC+	84	219	0.88	33.8	49	1.64
4.0 x 350	100 - 130	DC+	80	304	1.4	50.8	32	1.61

* stub end 35mm

Welding parameters, optimum fill passes

Welding positions Diameter (mm)	PA/1G Current (A)	PB/2F	PC/2G	PF/3G up	PE/4G	PF/5G up
2.5	60	60	60	60	60	60
3.2	85	80	90	80	80	80
4.0	120	120	120	100	100	100

Remarks

Deviations: chemical composition:

Mn = 0.5 - 2.0%

AWS: Mn = 0.5 - 1.5%

Ni = 8.0 - 10.5%

AWS: Ni = 6.5 - 8.5%

N = 0.20 - 0.30%

AWS: N = 0.10 - 0.25%

Application advice

Welding with heat input max. 1.5 kJ/mm

Interpass temperature max. 150°C