

Stainless steel electrode

Classification

AWS A5.4 : E2209-15
EN 1600 : E 22 9 3 N L B 22

Temperature range

pressurized parts : -40 ... +250°C
oxidation resistance : n.a.

General description

A basic electrode for 22% Cr duplex stainless steel welding
Excellent weldability for filling as well as for root runs
Applicable up to a service temperature of 250°C
High resistance to general corrosion, pitting and stress corrosion conditions
High yield strength > 500 N/mm²
Weldable on DC+ polarity
Also available in vacuum sealed Sahara ReadyPack® (SRP)

Welding positions



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

Current type

DC +

Approvals

DNV

+

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

C	Mn	Si	Cr	Ni	Mo	N	FN
0.025	1.6	0.5	23.5	9.0	3.0	0.15	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)			
					+20°C	-20°C	-40°C	-50°C
Required: AWS A5.4 EN 1600		not required min. 450	min. 690 min. 550	min. 20 min. 20	not required not required			
Typical values	AW	650	800	28	80	75	70	45

Packaging and available sizes

	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	250	350	350
Unit: SRP	Pieces / unit	69	55	30
	Net weight/unit (kg)	1.4	1.8	1.5
Unit: Box	Pieces / unit	112	152	103
	Net weight/unit (kg)	2.3	5.0	5.0

Identification

Imprint: 2209-15 / JUNGO 4462

Tip Color: red

Jungo® 4462: rev. EN 21

Materials to be welded

Steel grades	EN 10088-1/-2	W.Nr.	ASTM / ACI A240	UNS
Duplex stainless steels				
	X2 CrNiMoN 22 -5-3	1.4462		S31803
		1.4417		S31500
	X3 CrNiMoN 27-5-2	1.4460		S31200
	X2 CrNiN 23-4	1.4362		S32304

Dissimilar joints such as un- and low alloyed steel to duplex stainless steel

Calculation data

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time - per electrode at max. current - (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	50 - 80	DC+	74	101	0.62	21	78	1.64
3.2 x 350	70 - 110	DC+	84	219	0.88	33.8	49	1.64
4.0 x 350	100 - 140	DC+	80	304	1.4	50.8	32	1.61

* stub end 35 mm

Welding parameters, optimum fill passes

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

Remarks/ Application advice

interpass temperature depends on construction