

Stainless steel electrode

Classification

AWS A5.4-92 : E2209-16*
EN 1600-97 : E 22 9 3 N L R 53

* Deviation: see remarks

Temperature Range

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

General description

Rutile basic electrode for 22% duplex stainless steel welding with 145% recovery
Suitable for X and V fillet welds in horizontal position
Service temperature up to 250°C
High resistance against general corrosion, pitting and stress corrosion (PRE_N ~ 35)
Yield point Rp 0.2 > 500 N/mm²
Only available in vacuum sealed Sahara ReadyPack® (SRP)

Welding positions



ISO/ASME PA/1G PB/2F

Current type

AC / DC electr. +

Approvals

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

C	Mn	Si	Cr	Ni	Mo	N	FN
0.025	0.7	1.0	22.5	9.5	3.0	0.16	30-55

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
Required: AWS A5.4-92	not required	min. 690	min. 20	not required		
EN 1600-97	min. 450	min. 550	min. 20	not required		
Typical values	AW 650	800	27	60	50	35

Packaging, available sizes and identification

	Diameter (mm)	3.2	4.0
	Length (mm)	450	450
Unit: SRP	Pieces / unit (nominal)	31	12
	Net weight/unit (kg)	1.6	1.1

Identification Imprint: 2209-16 /Arosta 4462-145 Tip colour: white

Arosta® 4462-145: rev. EN 15

Arosta® 4462-145

Materials to be welded

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

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

Calculation data

Sizes Diam. x length (mm)	Current range type (A)	Current	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
3.2 x 450	90 - 110	DC+	82	305	1.6	57	28	1.65
4.0 x 450	120 - 150	DC+	86	426	2.3	91	18	1.64

* stub end 35mm

Welding parameters, optimum fill passes

Welding positions Diameter (mm)	PA/1G Current (A)	PB/2F
3.2	105	105
4.0	145	145

Remarks

Deviations: chemical composition:

Si = max. 1.2%

AWS: Si = max. 0.90%