

CLASSIFICATION

AWS A5.4	E2209-16*	A-Nr	8	Mat-Nr	1.4462
ISO 3581-A	E 22 9 3 N L R 3 2	F-Nr	5		
		9606 FM	5		

TEMPERATURE RANGE

Pressurized parts : -40...+250°C
Oxidation resistance : n.a

GENERAL DESCRIPTION

A rutile-basic all position electrode for 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 (PREN ~35)
High yield strength > 500 N/mm²
Weldable on AC and DC
Also available in vacuum sealed Sahara ReadyPack® (SRP)

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G



PH/5Gu

CURRENT TYPE

AC/DC +/-

APPROVALS

BV	DNV	GL	RINA	TÜV
2209	+	4462	2209	+

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

C	Mn	Si	Cr	Ni	Mo	N	FN (acc.WRC 1992)
0.02	0.8	1.0	22.5	9.5	3.2	0.16	30-55

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)			
				+20°C	-30°C	-40°C	
Required: AWS A5.4 ISO 3581-A Typical values	AW	not required min. 450 650	min. 690 min. 550 800	min. 20 min. 20 27	not required not required 60	50	40

PACKAGING AND AVAILABLE SIZES

	Diameter (mm) Length (mm)	2.5	3.2	4.0	5.0
		350	350	350	350
Carton + PE foil	Pieces / unit	120	152	95	-
	Net weight/unit (kg)	2.6	5.0	4.8	-
SRP	Pieces / unit	69	52	29	24
	Net weight/unit (kg)	1.5	1.8	1.6	2.0

Identification Imprint: 2209-16 / AROSTA 4462 Tip Color: white

Arosta® 4462: rev. C-EN26-01/02/16

Arosta® 4462

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2/-4	Mat. Nr	ASTM / ACI A240	UNS
Duplex stainless steels	X2CrNiMoN22-5-3	1.4462		S31803
		1.4417		S31500
	X3CrNiMoN27-5-2	1.4460		S31200
	X2CrNiN23-4	1.4362		S32304
	X2CrMnNi21-5-1	1.4162		S32101

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

CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time	Energy	Dep. rate	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
			- per electrode at max. current - (S)*	E(kJ)	H(kg/h)			
2.5 x 350	40 - 75	DC+	61	127	0.73	20.6	81	1.67
3.2 x 350	80 - 110	DC+	56	184	1.4	34.3	46	1.59
4.0 x 350	80 - 150	DC+	59	205	2.0	51.5	30	1.52
5.0 x 350	140 - 220		65	357	2.8	77.4	20	1.61

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions					
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G	PH/5Gup
2.5	70A	70A	70A	60A	80A	60A
3.2	100A	100A	100A	70A	70A	70A
4.0	140A	140A	140A	80A		
5.0	180A	180A	180A			

REMARKS / APPLICATION ADVICE

Welding with Heat-Input max. 2.5 kJ/mm

Interpass temperature max. 150°C

Deviations chemical composition:

Si = 0,4-1,2 AWS = max 1,00