

## Stainless steel electrode

### Classification

AWS A5.4 : E347-16  
EN 1600 : E 19 9 Nb R 12

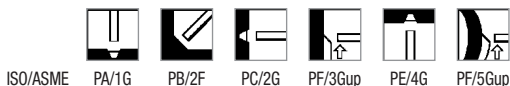
### Temperature range

pressurized parts : -120...+400°C  
oxidation resistance : to 800°C

### General description

Rutile-basic all position stainless steel electrode  
For Ti or Nb stabilized 304 or equivalent steels  
Excellent resistance in oxidizing environments such as nitric acid  
High resistance to intergranular corrosion  
Easy slag release and smooth bead appearance  
Strong electrode coating  
Weldable on AC and DC  
Also available in vacuum sealed Sahara ReadyPack® (SRP)

### Welding positions



### Current type

AC / DC + / -

### Approvals

TÜV  
+

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

C	Mn	Si	Cr	Ni	Nb	FN
0.03	0.8	0.8	19.5	9.8	0.35	06-12

### Mechanical properties, all weld metal

	Condition	0.2% Proof strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V(J)		
					+20°C	-20°C	-60°C
Required: AWS A5.4		not required	min. 550	min. 25	not required		
EN 1600		min. 350	min. 550	min. 25	not required		
Typical values	AW	500	630	35	70	50	35

### Packaging and available sizes

	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	350	350	350
Unit: Box	Pieces / unit	120	130	90
	Net weight/unit (kg)	2.6	4.7	4.9
Unit: SRP	Pieces / unit	69	52	28
	Net weight/unit (kg)	1.4	1.8	1.4

### Identification

Imprint: 347-16 / AROSTA 347

Tip Color: gold

Arosta® 347: rev. EN 21

**Materials to be welded**

Steel grades	EN 10088-1/-2	EN 102 13-4	W.Nr.	ASTM/ACI A240/A312/A351	UNS
<b>Ti-, Nb stabilized</b>					
	X6CrNiTi 18-10		1.4541	(TP)321 (TP)321H	S32100 S32109
	X6CrNiNb 18-10		1.4550	(TP)347 (TP)347H	S34700 S34709
		GX5CrNiNb 19-10	1.4552	CF-8C 302	J92710
<b>Non stabilized</b>					
	X4CrNi 18-10		1.4301	(TP)304	S30400
	X2CrNi 19-11		1.4306	(TP)304L	S30403
		GX5CrNi 19-10	1.4308	CF-8	J92600
			1.4312	(TP)304H	S30409

**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	40 - 75	DC+	52	78	0.87	20.7	80	1.66
3.2 x 350	60 - 110	DC+	54	119	1.4	34.9	48	1.67
4.0 x 350	80 - 150	DC+	64	210	1.7	49.0	33	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	70A	70A	70A	60A	60A	60A
3.2	100A	100A	100A	70A	70A	70A
4.0	140A	140A	140A	80A		

For root passes DC- is recommended.