

## CLASSIFICATION

<b>AWS A5.4</b>	E347-16	<b>A-Nr</b>	8	<b>Mat-Nr</b>	1.4551
<b>ISO 3581-A</b>	E 19 9 Nb R 12	<b>F-Nr</b>	5		
		<b>9606 FM</b>	5		

## 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 (AISI 321 and 347)  
 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 (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G



PH/5Gu

## CURRENT TYPE

AC / DC +/-

## APPROVALS

TÜV	DB
+	+

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

C	Mn	Si	Cr	Ni	Nb	FN [acc.WRC 1992]
0.03	0.8	0.8	19.5	9.8	0.35	6-12

## MECHANICAL PROPERTIES, TYPICAL, 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 ISO 3581-A Typical values	not required min. 350 500	min. 550 min. 550 630	min. 25 min. 25 35	not required not required 70	50	35
AW						

## PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	350	350	350
Carton + PE foil	Pieces / unit	120	130	90
	Net weight/unit (kg)	2.6	4.7	4.9
SRP	Pieces / unit	69	52	-
	Net weight/unit (kg)	1.4	1.8	-

Identification Imprint: 347-16 / AROSTA 347 Tip Color: gold

Arosta® 347; rev. C-EN24-01/02/16

# Arosta® 347

## EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/AISI A240/A312/A351	UNS
<b>Ti-, Nb stabilized</b>					
	X6CrNiTi18-10		1.4541	(TP)321 (TP)321H	S32100 S32109
	X6CrNiNb18-10		1.4550	(TP)347 (TP)347H	S34700 S34709
		GX5CrNiNb19-10	1.4552	CF-8C 302	J92710
<b>Non stabilized</b>					
	X4CrNi18-10		1.4301	(TP)304	S30400
	X2CrNi19-11		1.4306	(TP)304L	S30403
		GX5CrNi19-10	1.4308	CF-8	J92600
			1.4312	(TP)304H	S30409

## CALCULATION DATA

Sizes		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
Diam. x length (mm)	Current range [A]							
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 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	60A	60A
3.2	100A	100A	100A	70A	70A	70A
4.0	140A	140A	140A	80A		

For root pass, DC- is recommended