

## Stainless steel electrode

### Classification

AWS A5.4 : E312-17  
EN 1600 : E 29 9 R 12

### Temperature range

pressurized parts : -10 ... +350°C  
scaling resistance : n.a.

### General description

A rutile-basic high CrNi-alloyed all position electrode

Excellent for repair welding

Especially developed for steels difficult to weld, such as armour plates, austenitic Mn-steels and high C-steels

Excellent weldability and self releasing slag

Weldable on AC and 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

AC / DC +

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

C	Mn	Si	Cr	Ni
0.11	0.9	1.0	29.0	9.0

### 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
Required: AWS A5.4		not required	min. 660	min. 22	not required
EN 1600		min. 450	min. 650	min. 15	not required
Typical values	AW	700	800	20	50

### Packaging and available sizes

	Diameter (mm)	2.0	2.5	3.2	4.0	5.0
	Length (mm)	300	350	350	350	350
Unit: Box	Pieces / unit		125	150	100	72
	Net weight/unit (kg)		2.6	5.0	5.0	5.2
Unit: SRP	Pieces / unit	53	69	52	31	24
	Net weight/unit (kg)	0.6	1.5	1.8	1.5	1.7
Unit: Linc Pack	Pieces / unit		48	30		
	Net weight/unit (kg)		1.0	1.0		

### Identification

Imprint: 312-17 / LIMAROSTA 312

Tip Color: black

Limarosta® 312: rev. EN 21

## Materials to be welded

Various steel grades, such as:

- Armour plate
- Hardenable steels including steels difficult to weld
- Non-magnetic austenitic steels
- Work hardening austenitic manganese steels
- Dissimilar steel grades (CMn-steels to stainless steel) up to max. thickness of 12 mm

## 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
2.0 x 300	40 - 55	DC+	41	45	0.59	12.0	150	1.80
2.5 x 350	50 - 70	DC+	57	91	0.73	20.7	87	1.79
3.2 x 350	70 - 100	DC+	60	126	1.1	33.0	52	1.72
4.0 x 350	100 - 130	DC+	72	273	1.4	49.7	35	1.72
5.0 x 350	130 - 140	DC+	79	313	2.4	71.5	19	1.36

\* 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	90A	100A	65A	65A	65A
4.0	130A	125A	130A	80A		
5.0						