

**CLASSIFICATION**

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

**TEMPERATURE RANGE**

Pressurized parts : -10 ...+350°C  
Oxidation resistance : n.a

**GENERAL DESCRIPTION**

**A rutile-basic high CrNi-alloyed all position electrode**

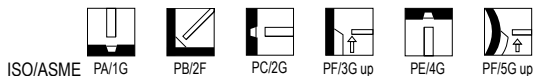
**Excellent for repair welding**

**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

**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, 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
Required: AWS 5.4 EN 1600		not required	min. 660	min. 22	not required
Typical values	AW	min. 450 700	min. 650 800	min. 15 20	not required 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: carton box	Pieces / unit	175	125	150	100	72
	Net weight/unit (kg)	2.2	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 22

# Limarosta® 312

## 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		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)							
2.0 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 35mm

## WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions					
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G	PF/5Gup
2.5	70A	70A	70A	60A	60A	60A
3.2	100A	90A	100A	65A	65A	65A
4.0	130A	125A	130A	80A		