

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

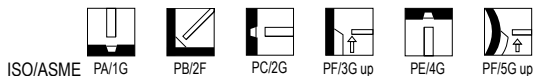
Excellent for repair welding

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 ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) +20°C
Required: AWS 5.4 EN 1600		not required min. 450	min. 660 min. 650	min. 22 min. 15	not required 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: 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		