Limarosta® 312

EMR SAHARA®

CLASSIFICATION

AWS A5.4	E312-17	**A-Nr**	8	**Mat-Nr**	1.4337
ISO 3581-A	E 29 9 R 1 2	**F-Nr**	5		
		9606 FM	5		

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)

PA/1G PB/2F PC/2G PF/3Gu PE/4G PH/5Gu

CURRENT TYPE

AC/DC +

APPROVALS

DB

+

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/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Required: AWS 5.4		not required	min. 660	min. 22	not required
ISO 3581-A		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
	Length (mm)	300	350	350	350
Carton + PE foil	**Pieces / unit**	175	125	150	100
	Net weight/unit (kg)	2.2	2.6	5.0	5.0
SRP	**Pieces / unit**	-	69	52	31
	Net weight/unit (kg)	-	1.5	1.8	1.5
Linc Pack	**Pieces / unit**	-	48	30	-
	Net weight/unit (kg)	-	1.0	1.0	-

Identification Imprint: 312-17 / LIMAROSTA 312 Tip Color: black

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EXAMPLES OF 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 - per electrode at max. current - E(kJ)	Dep. rate - per electrode at max. current - 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

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