

Gravity electrode

Classification

AWS A5.1-91 : E7024
 EN 499-94 : E 38 0 RR 73

General description

Rutile electrode, especially for gravity welding
 Applicable on primed plate material
 Fillet throat size a 3.0-5.5mm at 90 cm run out length
 Also suitable for high speed manual arc welding

Welding positions



ISO/ASME PB/2F

Current type

AC / DC electr. + / -

Approvals

RMRS
 2Y

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

C	Mn	Si
0.06	0.6	0.4

Mechanical properties, all weld metal

	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) 0°C
Required: AWS A5.1-91		min. 399	min. 482	min. 17	not required
EN 499-94		min. 380	470-600	min. 20	min. 47
Typical values	AW	430	520	27	80

Packaging, available sizes and identification

	Diameter (mm)	5.0	5.0	5.0	5.6	6.3	6.3
	Length (mm)	600	600	600	600	600	600
Unit: box	a-size (mm)	3.0	3.5	4.0	4.5	5.0	5.5
	Pieces / unit (nominal)	65	50	40	35	30	25
	Net weight/unit (kg)	9.7	8.8	7.9	8.5	8.5	8.4

Identification Imprint: none Tip colour: lilac

Geofors® rev. EN 15

Materials to be welded

Steel	Code	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 to DH36
Fine grained steel	EN 10113-2	S275, S355,
	EN 10113-3	S275, S355

Calculation data

Sizes Diam. x length (mm)	Throat size a (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
5.0 x 600	3.0	180 - 225	AC	138	932	2.4	145.5	11.0	1.60
5.0 x 600	3.5	210 - 250	AC	153	1052	2.7	178.0	8.8	1.57
5.0 x 600	4.0	220 - 275	AC	127	1083	4.0	207.7	7.0	1.46
5.6 x 600	4.5	250 - 325	AC	131	1426	4.9	253.0	5.6	1.42
6.3 x 600	5.0	310 - 375	AC	127	1646	5.9	292.3	4.8	1.39
6.3 x 600	5.5	350 - 400	AC	116	1879	7.5	342.0	4.1	1.42

*stub end 35 mm

Welding parameters, optimum fill passes

Welding position Diameter (mm)	a*	PB/2F** Current (A)	PB/2F ***
5.0	3.0	190	220
5.0	3.5	220	245
5.0	4.0	230	270
5.6	4.5	260	320
6.3	5.0	320	360
6.3	5.5	360	380

* run out length approx. 90 cm

** gravity welding

*** manual arc welding

Application advice

Adjust Geoski gravity welder to 900 mm welding length