Geofors

Classification

AWS A5.1-91 : E7024
EN 499 : 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 90cm run out length
Also suitable for high speed manual arc welding

Welding positions

ISO/ASME PB/2F

Current type

AC / DC electr. +/-

Approvals

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/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) 0°C
As welded					
Required:	AWS	min. 399	min. 482	min. 17	not required
	EN	min. 380	470-600	min. 20	min. 47
Typical values		430	520	27	80

Packaging, available sizes and identification

a-size (mm)	3.0	3.5	4.0	4.5	5.0	5.5
Diameter (mm)	5.0	5.0	5.0	5.6	6.3	6.3
Length (mm)	600	600	600	600	600	600
Unit: box						
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: - Tip colour: lilac

Liability: All information in this data sheet is based on the best available knowledge, is subject to change without notice and can only be considered as suitable for general guidance.

Fumes: Consult information on Welding Safety Sheet, available upon request

Geofors

Materials to be welded

General structural steel	EN 10025	S185, S235, S275, S355
Ship plates		Grade A, B, C, D, A(H)32, A(H) 36
Fine grained steel	EN 10113-2	S275, S355,
	EN 10113-3	S275, S355

Calculation data

Sizes Diam. x length	a	Current range	Current type	Arc time - per electrode	Energy at max. current -	Dep.rate	Weight/ 1000 pcs.	Electrodes/ kg weldmetal	kg Electrodes/ kg weldmetal
(mm)		(A)		(s)*	E(kJ)	H(kg/h)	(kg)	B	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 = 35mm

Welding parameters, optimum fill passes

Welding position Diameter (mm)	a* Current (A)	2F**	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. 900mm
** gravity welding
*** manual arc welding

Remarks

Application advice

Adjust Geoski gravity welder on 900 mm welding length