

High recovery rutile electrode

Classification

AWS A5.1-91 : E7024
EN 499-94 : E 38 0 RR 53

General description

Rutile electrode for fillet welds and horizontal V- and X-welds
High welding speed
Smooth weld appearance
Self releasing slag
High recovery (140%)

Welding positions



ISO/ASME PA/1G PB/2F PC/2G

Current type

AC / DC electr. -

Approvals

ABS	BV	CTL	DNV	FORCE	GL	LR	RMRS	TÜV
2	2,2Y	+	2	+	2Y	2,2Y	2Y	+

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

C	Mn	Si
0.08	0.5	0.35

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	47
Typical values	AW	460	530	25	54

Packaging, available sizes and identification

	Diameter (mm)	2.5	3.2	4.0	4.5	5.0	6.3
	Length (mm)	350	450	450	450	450	450
Unit: box	Pieces / unit (nominal)	100	90	65	60	45	30
	Net weight/unit (kg)	2.8	5.5	5.7	6.1	5.9	5.8

Identification

Imprint: 7024/Ferrod 135T

Tip colour: gold

Ferrod 135T: rev. EN 15

Ferrod 135T

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
Cast steel	EN 10213-2	G P 240R
Boiler & pressure vessel steel	EN 10028-2	P235, P265, P295, P355
Fine grained steel	EN 10113-2	S275, S355
	EN 10113-3	S275, S355

Calculation data

Sizes Diam. x length (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
2.5 x 350	80 - 100	AC	63	164	1.0	28.7	56	1.67
3.2 x 450	130 - 150	AC	85	344	1.6	61.3	27	1.67
4.0 x 450	180 - 200	AC	92	515	2.2	87.7	18	1.67
4.5 x 450	200 - 225	AC	110	619	2.2	102.9	15	1.56
5.0 x 450	275 - 300	AC	86	735	3.7	129.9	11	1.43

*stub end 35 mm

Welding parameters, optimum fill passes

Welding position Diameters (mm)	PA/1G Current (A)	PB/2F	PC/2G
2.5	90	90	90
3.2	150	140	140
4.0	200	190	190
4.5	210	210	200
5.0	290	280	

Application advice

High yield strength steels such as S355, L360, P355 and X60 preheat according EN 1011-1