

High recovery rutile electrode

Classification

AWS A5.1-91 : E7024
EN 499-94 : E 38 0 RR 33

General description

Rutile coated electrode for downhand fillets and horizontal V- and X-grooves
High current can be used with low spatter
Adjustable run-out length to optimize fillet size
Excellent side wall wetting
Selfreleasing, closed slag

Welding positions



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

Current type

AC / DC electr. -

Approvals

ABS	BV	CTL	DNV	GL	LR	TÜV
1	1	+	1	1	1	+

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

C	Mn	Si
0.06	0.60	0.50

Mechanical properties, all weld metal

	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)	
					0°C	-18°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	480	560	24	65	

Packaging, available sizes and identification

	Diameter (mm)	3.2	4.0	5.0
	Length (mm)	450	450	450
Unit: box	Pieces / unit (nominal)	100	80	55
	Net weight/unit (kg)	5.7	6.2	6.4

Identification

Imprint: 7024/Ferrod 120T

Tip colour: brown

Ferrod 120T: rev. EN 15

Ferrod 120T

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 EN 10113-3	S275, S355, 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
3.2 x 450	130 - 150	AC	76	319	1.6	55.8	31	1.67
4.0 x 450	170 - 190	AC	89	457	1.9	76.3	22	1.67
5.0 x 450	250 - 280	AC	90	706	2.9	114.1	14	1.67

*stub end 35 mm

Welding parameters, optimum fill passes

Welding position Diameters (mm)	PA/1G Current (A)	PB/2F	PC/2G
3.2	150	150	150
4.0	190	180	180
5.0	270	260	

Application advice

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