

Rutile electrode

Classification

AWS A5.1 :E6013
ISO 2560-A/EN499 :E 42 0 RC 11

General description

Rutile-cellulosic coated electrode. It can be used in all positions including vertical-downwards travel. As it is an easy to bend electrode, it brings great convenience to reach in difficult-to-reach areas. It has a good penetration respectively. The slag is easy to remove and it is very easy to strike and re-strike.

Welding positions



ISO/ASME PA/1G PB/2F PC/2G PF/3G up PG/3G down PE/4G

Current type

AC/DC electr.+/-

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

C	Mn	Si
0.08	0.55	0.45

Mechanical properties,all weld metal

		Condition	Yield strength, (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact (ISO), J 0°C
Required	AWA A5.1		min.331	min.414	min.17	Not required
	ISO 2560-A		min.420	470-600	min.20	min.47
Typical values after welding		AW	440	550	25	50

Packaging,available sizes and identification

Diameter (mm)		2.5	3.2
Length (mm)		350	350
Unit:	Pieces / unit (nominal)	250	190
Box	Net weight/unit (kg)	4.8	5.5

Identification Imprint: Elex[®] RC 6013 Ultra Tip colour: none

Elex[®] RC 6013 Ultra :rev. EN 20

Materials to be welded		
Steel	Code	Type
General structural steel	EN 10025	S185, S235, S275, S355 P235TR2 - P355T2
Ship plates	ASTM A 131	Grade A, B, D
Cast steel	EN 10213-2	G P 240R
Pipe material	EN 10208-1	L210 - L360NB
	EN 10208-2	L290MB - L360MB
	API 5LX	X42, X46, X52
	EN 10216-1	P235, P275
Boiler & pressure vessel steel	EN 10217-1	
	EN 10028-2	P295GH, P355GH P235GH, P265GH, P285NH
Fine grained steel	EN 10113-2	S255N - S420N P255NH

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/ 1 kg weldmetal (1/N)
2.5x350	70-100	AC				19.2		
3.2x350	90-150	AC				28.9		

Welding parameters,optimum fill passes								
Welding position Diameter (mm)	PA/1G Current (A)	PB/2F	PC/2G	PC/3G up	PG/3G down	PE/4G	PF/5G up	PG/5G down
2.5	80	85	85	80	85	85	80	85
3.2	110	115	115	110	115	110	110	115