

## Repair electrode

### Classification

AWS A 5.4-92 : E307-26\*  
 EN 1600-97 : E 18 8 Mn R 53

\* Nearest classification, see remarks

### General description

A rutile 6%Mn-alloyed stainless steel electrode  
 Especially developed for steels difficult to weld, such as:  
 - Armour plate  
 - Austenitic high Mn-steels  
 Often used for buffer layers in "hardfacing" applications  
 Weldable on DC+ polarity

### Welding positions



ISO/ASME PA/1G PB/2F

### Current type

AC / DC electr. +

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

C	Mn	Si	Cr	Ni
0.06	5.0	1.0	18.0	8.0

### Mechanical properties, all weld metal

Condition	Condition	0.2% Proof strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V(J)	
					+20°C	-10°C
Required: AWS A5.4-92		not required	min. 590	min. 30	not required	
EN 1600-97		min. 350	min. 500	min. 25	not required	
Typical values	AW	425	650	35	85	60

### Packaging, available sizes and identification

	Diameter (mm)	2.5	3.2	4.0	5.0
	Length (mm)	350	350	450	450
Unit: PE tube	Pieces / unit (nominal)	116	48	25	17
	Net weight unit (kg)	2.5	2.5	2.5	2.5

Identification Imprint: RepTec 126

Tip colour: red

RepTec 126: rev. EN 15

## Materials to be welded

Various steel grades, such as:

- Armour plate
- Hardenable steels including steels difficult to weld
- Non-magnetic austenitic steels
- Work hardening austenitic manganese steels
- Dissimilar steel grades (CMn-steels to stainless steel)

## 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	DC+	44	71	0.96	17.8	85	1.52
3.2 x 350	110 - 150	DC+	53	132	1.4	29.1	48	1.39
4.0 x 450	140 - 200	DC+	86	264	1.7	55.9	25	1.41
5.0 x 450	210 - 260	DC+	82	388	2.7	85.3	16	1.39

\* stub end 35mm

## Welding parameters, optimum fill passes

Welding positions Diameter (mm)	PA/1G Current (A)	PB/2F	PC/2G
2.5	60	60	60
3.2	90	90	90
4.0	140	115	130
5.0	160	165	

## Remarks

Deviations: chemical composition:

Mn = 4.5 - 7.5%

Cr = 18.0 - 21.5%

Ni = 7.0 - 10.0%

AWS: Mn = 3.30 - 4.75%

AWS: Cr = 18.0 - 21.5%

AWS: Ni = 9.0 - 10.7%