Repair electrode

Classification

ASW A5.4 : E307-26*
EN 1600 : 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 lates and austenitic high Mn-steels
Often used as a buffer layer in hardfacing applications
Weldable on DC+ polarity

Welding positions

ISO/ASME PA/1G PB/2F

Current type

AC / DC +

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

Packaging and available sizes

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

Identification Imprint: REPTEC 126 Tip Color: red

RepTec 126: rev. EN 21

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 35 mm

Welding parameters, optimum fill passes

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

Remarks/ Application advice

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%