

EI 307R

Coated Electrode for Stainless Steels -

Standards

AWS/ASME SFA - 5.4	~E307-16
EN ISO 3581 - A	E 18 8 Mn R 12
TS EN ISO 3581 - A	E 18 8 Mn R 12
DIN M. No.	1.4370

Properties and Applications

Rutile coated electrode for joining dissimilar steels, depositing buffer layer before hardfacing and claddings on ferritic steels. The weld metal consists of austenitic Cr-Ni-Mn steel with possible small amounts of delta ferrite. The weld metal is highly crack resistant and therefore suited for joining difficult to weld steels and depositing stress relaxing buffer layers on crack sensitive base metal prior to hardfacing deposits. Weld metal work hardens by impact and pressure. Suitable for armour plates, high-manganese steels, rails, cross-overs, crane wheels, idlers, which are subjected to dynamically loading, pressure, impact and abrasion. It is non-scaling up to 850°C and highest operating temperature for dissimilar steel joints is 300°C. In the case of higher temperatures, use ENI 422 electrodes. Easy to use in positional welding and possible to use equally well both with AC and DC.

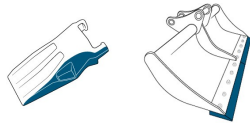
Approvals & Certificates

TUV	GOST	CE
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Materials

Width	Material	ASTM
X3CrNiMo17-13-3	1.4436	316
X5CrNiMo17-12-2	1.4401	316

Typical Applications



Typical Chemical Values of Weld Metal

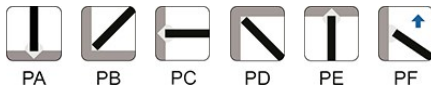
Type of Analysis	C	Si	Mn	CR	Ni
Weld Deposit	0.10	0.45	6.00	19.50	9.00

Typical Mechanical Values of Weld Metal

Test Condition	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Charpy V-Notch Properties (J)
As welded	500	650	37	20°C → 80

Application Information

Welding Positions



Polarity:



Welding Parameters & Efficiency

Diameter x Length (mm)	Current (A)
2.50x300	50-80
3.25x300	80-120
3.25x350	80-120
4.00x350	100-165
5.00x350	140-220

Packaging Information

Product Code	Diameter x Length (mm)	Quantity per Box	Box Gross Weight (kg)	Boxes per Outer Box	Outer Box Gross Weight (kg)	Packaging Type
13000GJEM2	2.50x300	96 pcs	1.79	9	16.30	VAC Box
13000MDEM2	3.25x300	88 pcs	2.62	3	8.00	Plastic Box
13000MJEM2	3.25x300	62 pcs	1.79	9	16.30	VAC Box
13000NJEM2	3.25x350	56 pcs	2.04	9	18.60	VAC Box
13000QJEM2	4.00x350	36 pcs	2.04	9	18.60	VAC Box
13000TJEM2	5.00x350	25 pcs	2.04	9	18.60	VAC Box

Storage & Re-Drying Information

It can be dried maximum 5 times.
It should be stored in a dry room (relative humidity < 50%, room temperature > 20°C) on wooden pallets.
It has to be dried at 350°C for 2 hours.