

# EI 312

Coated Electrode for Stainless Steels -

## Standards

AWS/ASME SFA - 5.4	E312-16
EN ISO 3581 - A	E 29 9 R 12
TS EN ISO 3581 - A	E 29 9 R 12
DIN M. No.	1.4337

## Approvals & Certificates

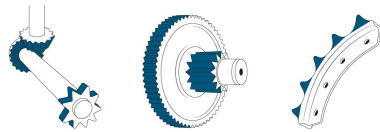
TUV CE

## Properties and Applications

Rutile type stainless steel electrode for joining dissimilar steels and depositing claddings on ferritic steels. The ferritic-austenitic Cr-Ni weld metal contains approximately 50% of delta-ferrite and is non-scaling up to 1100°C. It features high resistance to cracking and is therefore suited for joining difficult to weld steels and depositing stress-relaxing buffer layers on crack sensitive base metals. Especially used in crack repair and build-up of tool and die steels, rebuilding of worn or cracked gear teeth, buffer layer on cutting blades. Suitable for welding galvanized steel plates. Possible to use equally well both AC and DC. Easy arc striking and re-striking. Fine metal droplet transfer, good fusion of joints faces, finely rippled bead surface, easy slag removal.



## Typical Applications



## Typical Chemical Values of Weld Metal

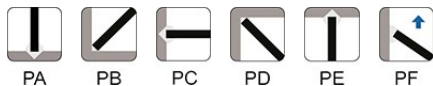
Type of Analysis	C	Si	Mn	Cr	Ni
Weld Deposit	0.10	0.60	1.00	29.50	9.00

## Typical Mechanical Values of Weld Metal

Test Condition	Yield Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation A5 (%)	Charpy V-Notch Properties (J)
As welded	660	760	20	20°C → 50

## Application Information

### Welding Positions



### Polarity:



### Welding Parameters & Efficiency

Diameter x Length (mm)	Current (A)	Weld Deposit(Kg)/1Kg Consumed Electrode	Number of Electrodes/1Kg Weld Deposit	Weld Metal Deposition Rate (Kg/h)	Efficiency(%)
5.00x350	160-220	0,54	23	2,41	101
4.00x350	110-160	0,53	36	1,73	102
3.25x300	80-120	0,54	63	1,29	106
3.25x350	80-110	0,54	57	1,29	107
2.50x300	50-80	0,54	103	0,88	108

2.00x300	30-60	0,54	127	0,65	108
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#### Packaging Information

PRODUCT CODE	Diameter x Length (mm)	Quantity per box (approx.)	Box Net Weight (kg)	NUMBER OF BOXES IN PACKAGE	Package Net Weight (kg)	Packaging Type
13015DJEM2	2.00x300	140 pcs	1.8	10	18.5	VAC Box
13015GBEM2	2.50x300	56 pcs	1.0	10	11.3	Plastic Box
13015GDEM2	2.50x300	140 pcs	2.5	3	8.0	Plastic Box
13015GJEM2	2.50x300	98 pcs	1.8	10	18.5	VAC Box
13015MBEM2	3.25x300	34 pcs	1.0	10	11.3	Plastic Box
13015MDEM2	3.25x300	85 pcs	2.5	3	8.0	Plastic Box
13015MJEM2	3.25x300	60 pcs	1.8	10	18.2	VAC Box
13015NJEM2	3.25x350	59 pcs	2.0	10	18.6	VAC Box
13015QBEM2	4.00x350	20 pcs	1.0	10	11.3	Plastic Box
13015QDEM2	4.00x350	50 pcs	2.5	3	8.0	Plastic Box
13015QJEM2	4.00x350	40 pcs	2.0	10	18.6	VAC Box
13015TJEM2	5.00x350	25 pcs	2.0	10	20.7	VAC Box

#### Storage & Re-Drying Information

It can be dried maximum 5 times.  
It has to be dried at 350°C for 2 hours.