

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 |
| EN 1600 | E 29 9 R 12 |

Approvals & Certificates

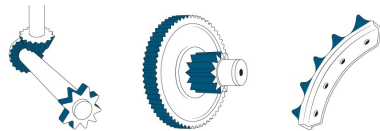
| | | |
|------|-----|----|
| GOST | TUV | CE |
|------|-----|----|

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

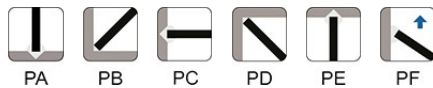
| Type of Analysis | C | Si | Mn | Cr | Ni |
|------------------|------|------|------|-------|------|
| Weld Deposit | 0.10 | 0.60 | 1.00 | 29.50 | 9.00 |

Typical Mechanical Values of Weld Metal

| Test Condition | Tensile Strength (N/mm ²) | Elongation A5 (%) | Charpy V-Notch Properties (J) |
|----------------|---------------------------------------|-------------------|-------------------------------|
| As welded | 780 | 23 | 20°C → 50 |

Application Information

Welding Positions



Polarity:



Welding Parameters & Efficiency

| Diameter x Length (mm) | Current (A) |
|------------------------|-------------|
| 2.00x300 | 30-60 |
| 2.50x300 | 50-80 |
| 3.25x300 | 80-120 |
| 3.25x350 | 80-110 |
| 4.00x350 | 110-160 |
| 5.00x350 | 160-220 |

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 |
|--------------|------------------------|------------------|-----------------------|---------------------|-----------------------------|----------------|
| 13015DJEM2 | 2.00x300 | 140 AD | 1.79 | 9 | 16.30 | VAC Box |
| 13015GJEM2 | 2.50x300 | 98 AD | 1.79 | 9 | 16.30 | VAC Box |
| 13015MJEM2 | 3.25x300 | 60 AD | 1.79 | 9 | 16.30 | VAC Box |
| 13015NJEM2 | 3.25x350 | 59 AD | 2.04 | 9 | 18.60 | VAC Box |
| 13015QJEM2 | 4.00x350 | 40 AD | 2.04 | 9 | 18.60 | VAC Box |
| 13015TJEM2 | 5.00x350 | 25 AD | 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.