

Rutile Coated Electrode for Mild Steels

Classification

EN ISO 2560-A : E 42 0 RR 12
AWS A5.1 : E7014

General Description

AS R-116 is a heavily coated rutile electrode. Weld metal has a high resistance to cracking in multipass applications. The slag is easy to remove and it gives high quality, smooth weld beads. It is easy to strike and re-strike and thus an ideal electrode for tacking. It is an easy to use electrode. It has about 100% metal recovery due to high iron powder content in its coating.

Chemical Composition (w%), Typical, All Weld Metal

| C | Si | Mn |
|------|------|------|
| 0.08 | 0.40 | 0.60 |

Mechanical Properties, Typical, All Weld Metal

| | |
|-------------------|------------------------------|
| Yield Strength | : 470 N/mm ² |
| Tensile Strength | : 550 N/mm ² |
| Elongation (L=5d) | : 25 % |
| Impact (ISO-V) | : 60 J (0°C) 40 J (-20°C) |

Approvals

CE, GOST, SEPRO, TSE

| ABS | BV | DNV | GL | LRS | TL |
|-----|----|-----|----|-----|----|
| 2 | 2 | 2 | 2 | 2m | 2 |

Welding Parameters / Packaging and Available Sizes / Welding Positions

Current Type and Polarity : AC min 50 V ; DC (-)

| Diameter [mm] | Length [mm] | Current [A] | Electrode Weight [g/100 pcs] | Box Weight [kg] Quantity [pcs/box] | Export Box Box Weight [kg] |
|-----------------|---------------|---------------|--------------------------------|---|---------------------------------|
| 2.00 | 300 | 50 - 70 | 1130 | 1.7 / 150 | 2 |
| 2.50 | 350 | 60 - 100 | 2120 | 2.1 / 100 | 5 |
| 3.25 | 350 | 95 - 145 | 3190 | 3.2 / 100 | 5 |
| 4.00 | 350 | 140 - 190 | 4830 | 4.8 / 100 | 5 |
| 5.00 | 350 | 180 - 245 | 7410 | 4.8 / 65 | 5 |



1G/PA

2F/PB

2G/PC

4G/PE

3G/PF

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Applications and Materials to be Welded

AS R-116 is a general purpose electrode for welding mild steels. Bridging over fairly large gaps that can occur in site welding where preheating is not possible, galvanized plates, rusty or dirty surfaces, ordinary ship's plate of A- and D- quality, automotive bodies and general structural steels are among its application areas.

| | <u>DIN</u> | <u>EN</u> |
|--|---|--|
| General Structural Steels | St 33, St 34, St 37, St 44, St 44-2, St 44-3, St 52, St 52-3 St 37-4, St 44-4, St 52-4 | S185, S235, S275, S355 P235TR2 - P355T2 |
| Fine Grained Steels | StE 255 - StE 420 | S255N - S420N |
| Pipe Materials | StE 210-7 - StE 360-7 StE 290-7 TM - StE 360-7 TM | L210 - L360NB L290MB - L360MB |
| Boiler and Pressure Vessel Steels | 17 Mn 4 HI, HII, HIII | P295GH P235GH, P265GH, P285NH |
| Elevated Temperature Steels | St 35-8, St 45-8 | P235G1TH - P255G1TH |
| Ship Plates | A, D | — |
| Cast Steels | GS-38, GS-45, GS-52 | GE200, GE240, GE260 |