

# ES TIG 90S-B3

GTAW  
ER90S-B3

**ESWECO**  
*The Art of Welding*

## Description

ES TIG 90S-B3 is a 2.5Cr-1.1Mo-alloyed (ER90S-B3), copper-coated rod for the GTAW of creep-resistant steels like SA-387 Grade 22, A335 Grade P22 or similar materials.

ES TIG 90S-B3 typically used in chemical industries for heat exchangers, boilers, piping and pressure vessels at service temperatures up to 1100°F (590 °C).

## Current

DC (-)

## Classifications

SFA/AWS A5.28 ER90S-B3

## Typical all weld metal composition, %

| C    | Si  | Mn  | Cr  | Mo  |
|------|-----|-----|-----|-----|
| 0.09 | 0.6 | 0.6 | 2.5 | 1.0 |

## Typical mech. Properties all weld metal

|                       |     |
|-----------------------|-----|
| Yield stress, MPa     | 620 |
| Tensile strength, MPa | 730 |
| Elongation, %         | 22  |

## Charpy V

|                |                  |
|----------------|------------------|
| Test temps, °C | Impact values, J |
| -40            | >47              |

## Welding parameters

| Diameter, mm | Length, mm | Weight of rods/box, kg |
|--------------|------------|------------------------|
| 1.6          | 1000       | 5.0                    |
| 2.0          | 1000       | 5.0                    |
| 2.4          | 1000       | 5.0                    |
| 3.2          | 1000       | 5.0                    |