

## TIGWELD P92

TIG Rods [GTAW]

Creep resistant steels

|                                                                    |                   |                           |
|--------------------------------------------------------------------|-------------------|---------------------------|
| <b>CLASSIFICATION:</b>                                             | <b>APPROVALS:</b> | <b>APPLICATION:</b>       |
| EN ISO 21952-A : W ZCrMoWVNb 9<br>0,5 1,5<br>AWS A-5.28 : ER 90S-G |                   | Power generation industry |

- TIG welding rods.
- For creep resistant, modified 9% Cr, 1% Mo martensitic steels T92/P92.

### Application

Energy industry, especially the construction of boilers with supercritical parameters. Applications related to the chemical industry, oil and industrial gases.

### Base material

For P92, 9%Cr1.7%W0.5%Mo, martensitic creep resistant steels.

X10CrWMoVNb92

ASTM: A182 grade F92, A213 grade T92, A335 grade P92, A387 grade 92.

### Typical chemical composition %

| C    | Si   | Mn   | Cr  | Ni  | Mo  | V   | Nb   | W    |
|------|------|------|-----|-----|-----|-----|------|------|
| 0,10 | 0,40 | 0,44 | 8,8 | 0,5 | 0,4 | 0,2 | 0,05 | 1,58 |

### Typical mechanical properties

|                                               |                                 |
|-----------------------------------------------|---------------------------------|
| <b>Yield strength Re [N/mm<sup>2</sup>]</b>   | ≥540                            |
| <b>Tensile strength Rm [N/mm<sup>2</sup>]</b> | ≥620                            |
| <b>Elongation A5 [%]</b>                      | ≥17                             |
| <b>Impact energy Kv [J]</b>                   | >47J (20°C) /                   |
| <b>Heat treatment</b>                         | Annealing: 760°C                |
| <b>Shielding gases acc. to EN ISO 14175</b>   | I1 - Ar / I3 - Ar + >0-95% He / |

### Welding parameters and packing

| Ø   | Length [mm] | Weight of packet [kg] |
|-----|-------------|-----------------------|
| 1,6 | 1000 /      | 5,0                   |
| 2,0 | 1000 /      | 5,0                   |
| 2,4 | 1000 /      | 5,0                   |
| 3,0 | 1000 /      | 5,0                   |

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