

ES TIG NiCr-3

GTAW
ERNiCr-3

ESWECO
The Art of Welding

Description

A nickel-based, corrosion- and heat-resistant, 20% Cr, 3% Mn, 2.5% Nb rod for the GTAW of high-alloyed steel, heat-resistant steel, corrosion-resistant steel, 9% Ni steels and similar steels with high notch toughness at low temperatures. It is also suitable for joining dissimilar metals of the types mentioned above. ES TIG NiCr-3 is usually welded with pure Ar as the shielding gas.

Current

DC (-)

Classifications

| | |
|---------------|----------------------------|
| SFA/AWS A5.14 | ERNiCr-3 |
| EN ISO 18274 | S Ni 6082 (NiCr20Mn3Nb) |

Typical all weld metal composition, %

| C | Si | Mn | Cr | Ni | Ti | Cu | Fe |
|------|------|-----|------|-------|------|------|------|
| <0.1 | <0.5 | 3.0 | 20.0 | >67.0 | <0.7 | <0.5 | <3.0 |

Typical mech. Properties all weld metal

| | |
|-----------------------|-----|
| Yield stress, MPa | 440 |
| Tensile strength, MPa | 670 |
| Elongation, % | 40 |

Charpy V

| | |
|----------------|------------------|
| Test temps, °C | Impact values, J |
| +20 | 150 |
| -196 | 100 |

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 |