

## OK Tigrod 12.64

A copper coated, G4Si1/ER70S-6 rod for GTAW of general structural and engineering unalloyed and low-alloyed carbon-manganese steels. Compared with OK Tigrod 12.61, OK Tigrod 12.64 has a slightly higher silicon and manganese content, which increases the weld metal strength. The high silicon content promotes low sensitivity to surface impurities and contributes to smooth, sound welds.

### Specifications

#### Classifications

EN ISO 636-A : W 46 5 4Si1  
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SFA/AWS A5.18 : ER70S-6

#### Approvals

ABS : 3Y (I1)  
BV : 3YM  
CE : EN 13479  
DNV-GL : III YM (I1)  
LR : 3Y H15 (I1)  
UKCA : EN 13479  
VdTÜV : 05260

Approvals are based on factory location. Please contact ESAB for more information.

#### Alloy Type

Carbon-manganese steel

#### Shielding Gas

I1 (EN ISO 14175)

### Typical Tensile Properties

| Condition                           | Yield Strength | Tensile Strength | Elongation |
|-------------------------------------|----------------|------------------|------------|
| <b>Ar (I1) AWS</b>                  |                |                  |            |
| Stress Relieved<br>2 hour(s) 620 °C | 400 MPa        | 525 MPa          | 32 %       |
| As Welded                           | 510 MPa        | 610 MPa          | 30 %       |
| <b>Ar (I1) EN</b>                   |                |                  |            |
| As Welded                           | 525 MPa        | 595 MPa          | 26 %       |

### Typical Charpy V-Notch Properties

| Condition          | Testing Temperature | Impact Value |
|--------------------|---------------------|--------------|
| <b>Ar (I1) AWS</b> |                     |              |
| Stress Relieved    | -46 °C              | 80 J         |
| As Welded          | -46 °C              | 100 J        |
| <b>Ar (I1) EN</b>  |                     |              |
| As Welded          | -50 °C              | 90 J         |
| As Welded          | -40 °C              | 150 J        |

### Typical Wire Composition %

| C     | Mn   | Si   |
|-------|------|------|
| 0.074 | 1.68 | 0.95 |

### Typical Weld Metal Analysis %

| C    | Mn   | Si   | S     | P     |
|------|------|------|-------|-------|
| 0.08 | 1.28 | 0.80 | 0.013 | 0.015 |