

# **OK TIGROD 13.09**

### A Cu coated 0.5Mo alloyed solid rod for GTAW

Classification AWS A5.28: ER80S-G

### **DESCRIPTION**

OK TIGROD 13.09 is copper coated 0.5Mo alloyed solid for the GTAW of creep-resistant steels of the same type, such as pipes in pressure vessels and boilers with a working temperature of up to about 500°C. The rod can also be used for high strength low alloy steels.

APPROVALS: CE, DB, DNV & VdTÜV

WELDING CURRENT: DC-

SHIELDING GAS: Ar

### **TYPICAL PROPERTIES**

	mposition t.%)	All Weld Mechanical Prop	erties
C	0.10	YS (N/mm²)	540
Si	0.60	UTS (N/mm²)	630
Mn	1.10	Elongation (%)	25
Mo	0.50	Impact (CVN)	
Cu	0.15	@ -40°C (Joules)	90

### **PACKING DATA**

Size (mm)	Length (mm)	Packing (5 Kg.)
1.6	1000	/
2.0	1000	✓
2.4	1000	✓
3.2	1000	✓

PACKING: The rods are packed in tubes weighing 5 kg.

### **OK TIGROD 13.16**

# A Cu coated 1.3Cr-0.5Mo alloyed solid rod for GTAW of creep resistant steels

Classification AWS A5.28: ER80S-B2

### **DESCRIPTION**

OK TIGROD 13.16 is a copper coated chromium-molybdenum alloyed (1.3Cr-0.5Mo), solid rod for GTAW of creep resistant steels like SA387 Grade 11, A335 Grade P11 or similar materials. OK TIGROD 13.16 is a high purity wire with a guaranteed Bruscato factor X<15.

APPROVALS: CE

WELDING CURRENT: DC-

SHIELDING GAS: Ar

### **TYPICAL PROPERTIES**

Wire Composition (Wt.%)		All Weld Mechanical Prop	erties
С	0.08	YS (N/mm²)	640
Si	0.50	UTS (N/mm²)	730
Mn	0.60	Elongation (%)	24
Cr	1.30	Impact (CVN)	
Mo	0.50	@ -40°C (Joules)	50
Cu	0.15		

### **PACKING DATA**

Size (mm)	Length (mm)	Packing (5 Kg.)
1.6	1000	✓
2.0	1000	✓
2.4	1000	✓
3.2	1000	1



# **OK TIGROD 13.28**

### A Cu coated 2.4Ni alloyed solid rod for GTAW

Classification AWS A5.28: ER80S-Ni2

### **DESCRIPTION**

OK TIGROD 13.28 is a copper coated 2.4Ni alloyed, solid rod for GTAW of low-alloyed and low temperature steels in applications such as vessels, pipes and offshore industry with a minimum yield strength less than 470 MPa. The wire provides good impact toughness down to -60°C.

APPROVALS: VdTÜV

WELDING CURRENT: DC-

SHIELDING GAS: Ar

### **TYPICAL PROPERTIES**

Wire Composition (Wt.%)	All Weld Mechanical Properties	
C 0.10 Si 0.60 Mn 1.10 Ni 2.40 Cu 0.15	YS (N/mm²) UTS (N/mm²) Elongation (%) Impact (CVN) @ -20°C (Joules) @ -40°C (Joules) @ -60°C (Joules)	540 630 30 200 180 150

### **PACKING DATA**

Size (mm)	Length (mm)	Packing (5 Kg.)
1.6	1000	/
2.0	1000	✓
2.4	1000	✓
3.0	1000	✓

**PACKING:** The rods are packed in tubes weighing 5 kg.

### OK TIGROD 13.32

A Cu coated 5Cr-0.5Mo alloyed solid rod for GTAW of creep resistant steels

Classification AWS A5.28: ER80S-B6

### **DESCRIPTION**

OK TIGROD 13.32 is a copper coated 5Cr-0.5Mo alloyed, solid rod for the GTAW of creep resistant steels of similar composition. The rod is also suitable for welding of high strength steels with minimum yield strength less than 730 MPa.

WELDING CURRENT: DC-

SHIELDING GAS: Ar

### **TYPICAL PROPERTIES**

Wire Composition (Wt.%)		All Weld Mechanical Pro	perties
Si 0. Mn 0. Cr 5. Mo 0.	07 .40 .60 .70 .60	YS (N/mm²) UTS (N/mm²) Elongation (%) Impact (CVN) @ +20°C (Joules) @ -20°C (Joules) @ -30°C (Joules)	580 680 22 100 80 50

### **PACKING DATA**

Size (mm)	Length (mm)	Packing (5 Kg.)
1.6	1000	✓
2.0	1000	✓
2.4	1000	✓



# **OK TIGROD 13.37**

A Cu coated 9Cr-1Mo alloyed solid rod for GTAW of high temperature steels

Classification AWS A5.28: ER80S-B8

### **DESCRIPTION**

OK TIGROD 13.37 is a copper coated 9Cr-1Mo alloyed, solid rod for the GTAW of high temperature steels and steels for hot hydrogen service, especially in oil refineries.

WELDING CURRENT: DC-

SHIELDING GAS: Ar

### **TYPICAL PROPERTIES**

Wire Composition (Wt.%)		All Weld Mechanical Prop	erties
Mn	0.08 0.40 0.60 9.00 1.00	YS (N/mm²) UTS (N/mm²) Elongation (%) Impact (CVN) @ -20°C (Joules) @ -40°C (Joules) @ -60°C (Joules)	540 660 26 140 120 90

### **PACKING DATA**

Size (mm)	Length (mm)	Packing (5 Kg.)
1.6	1000	1
2.0	1000	✓
2.4	1000	✓

PACKING: The rods are packed in tubes weighing 5 kg.

# **OK TIGROD 13.38**

A Cu coated 9Cr-1Mo-V-N alloyed solid rod for GTAW of high temperature steels

Classification AWS A5.28: ER90S-B9

### **DESCRIPTION**

OK TIGROD 13.38 is a copper coated 9Cr-1Mo-V-N alloyed solid rod for the GTAW of high temperature steels and steels for hot hydrogen service, especially in oil refineries. It is preferably be used for 9Cr steels, such as P91/T91. The wire has extremely high purity chemistry and produces improved strength levels both at room temperature and higher temperatures.

APPROVALS: VdTŰV,

WELDING CURRENT: DC-

SHIELDING GAS: Ar

### **TYPICAL PROPERTIES**

	mposition /t.%)	All Weld Mechanical Prop	erties
С	0.10	YS (N/mm²)	690
Si	0.30	UTS (N/mm²)	790
Mn	0.50	Elongation (%)	20
Cr	8.90	Impact (CVN)	
Ni	0.80	@ 0°C (Joules)	180
Мо	1.00	@ -20°C (Joules)	150
Nb	0.06	@ -40°C (Joules)	90
N	0.04	@ -60 C (Joules)	70
V	0.20		

### **PACKING DATA**

Size	Length	Packing
(mm)	(mm)	(5 Kg.)
2.0 2.4	1000 1000	<i>y y</i>



# **OK TIGROD B2L**

A Cu coated low carbon 1.3Cr-0.5Mo alloyed solid rod for GTAW of creep resistant steels

Classification AWS A5.28: ER70S-B2L

### **DESCRIPTION**

OK TIGROD B2L is a low carbon GTAW solid rod suitable for welding creep resistant steels of the type 1.25Cr-0.5Mo. It provides excellent mechanical properties as well as high creep resistance.

WELDING CURRENT: DC-

SHIELDING GAS: Ar

### **TYPICAL PROPERTIES**

Wire Composition (Wt.%)		All Weld Mechanical Properties	
С	0.03	YS (N/mm²)	540
Si	0.60	UTS (N/mm <sup>2</sup> )	630
Mn	0.60	Elongation (%)	25
Cr	1.30	Impact (CVN)	
Мо	0.50	@ -20°C (Joules)	150
Cu	0.15		

### **PACKING DATA**

Size (mm)	Length (mm)	Packing (5 Kg.)
1.6	1000	/
2.0	1000	✓
2.4	1000	1

**PACKING:** The rods are packed in tubes weighing 5 kg.

# **OK TIGROD 13.17**

A Cu coated 2.5Cr-1Mo alloyed solid rod for GTAW of creep resistant steels

Classification AWS A5.28: ER90S-B3

### **DESCRIPTION**

OK TIGROD 13.17 is a copper coated chromium-molybdenum alloyed (2.5Cr-1Mo), solid rod for GTAW of creep resistant steels like SA387 Grade 22, A335 Grade P22 or similar materials. The wire has high purity chemistry with a guaranteed Bruscato factor X < 15.

APPROVALS: CE

WELDING CURRENT: DC-

SHIELDING GAS: Ar

### **TYPICAL PROPERTIES**

Wire Composition		All Weld	
(Wt.%)		Mechanical Properties	
C	0.09	YS (N/mm²)	620
Si	0.50	UTS (N/mm²)	730
Mn Cr	0.60 2.40	Elongation (%) Impact (CVN)	22
Mo Cu	1.00 0.15	@ -40°C (Joules)	50

### **PACKING DATA**

Size (mm)	Length (mm)	Packing (5 Kg.)
2.0	1000	✓
2.4	1000	✓
3.2	1000	1