

**Welding of creep resistant steel 13CrMo4 4****GENERAL DESCRIPTION**

Chromium-molybdenum alloyed low hydrogen welding electrode for welding creep resistant steels (1Cr-0.5Mo).  
Field of application up to operational temperatures of 550 °C.

**APPLICATIONS**

Steam pipes, super heaters, petroleum cracking plants, power plants...  
Welding of 13CrMo4 4, GS-17CrMo5 5.

**CHEMICAL COMPOSITION (%) (Typical values, all weld metal)**

C : 0.07	Mn : 0.65	Si : 0.55	Cr : 1.20	Mo : 0.50
P : < 0.02	S : <0.02			

**MECHANICAL PROPERTIES (Typical values, all weld metal)**

Yield Strength N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>	Elongation 5d (%)	Impact Strength Charpy V notch (ISO-V)
≥ 355 MPa	≥ 510 MPa	≥ 20 %	≥ 47 J (-20°C)

**GENERAL INFORMATION**

<b>Welding positions</b>	All, except vertical down		
<b>Shielding gas</b>	NA		
<b>Packing</b>	5 Kg in a cardboard box		
<b>Polarity</b>	DC, reverse polarity (electrode positive)		
<b>Diameter (mm)</b>	2.5	3.2	4.0
<b>Length (mm)</b>	350	350	350
<b>Approx. current (A)</b>	75- 95	100 - 130	140 – 180

**Tips & Tricks**

Weld with a short arc, electrode almost perpendicular to the work piece.  
Always use dry electrodes to obtain the highest possible mechanical characteristics. Rebaking at 300°C for 2 hours.  
Heat treatment:  
Preheating 150 °C - 250 °C  
Stress relieving: 720 °C

*The information in this document is based on intensive tests and is accurate to the best of our knowledge. Do note that these values are only typical values for tests in accordance to prescribed standards. The suitability of the product should always be confirmed by qualification tests before use in any application. The information can be changed without previous notice.*