

## Exaton NiCr-3

NiCr-3 welding wire is suitable for overlay welding when a deposit with chemistry corresponding to UNS N08825 is required. The weld deposit is a nickel-iron-chromium-molybdenum-copper alloy suitable for use in extremely corrosive environments. NiCr-3 has very good resistance to stress corrosion cracking (SCC) in chloride containing environments and is particularly suited for use in reducing environments such as those containing sulphuric and phosphoric acids. NiCr-3 is used for corrosion resistant alloy surfacing of components in the chemical, pollution control, oil & gas and petrochemical industries and often in connection with sour gas service. Typical components are tanks, heat exchangers, evaporators, transport pipes and scrubbers etc. It is used for TIG welding.

### Specifications

#### Classifications

SFA/AWS A5.14 : ERNiFeCr-1  
EN ISO 18274 : S Ni 8065 (NiFe30Cr21Mo3)

#### Alloy Type

Alloyed nickel (Ni + 22% Fe, 27% Cr, 3% Mo)

### Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	338 MPa ( 49 ksi )	546 MPa ( 79 ksi )	47 %

### Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
ISO		
As Welded	-196 °C ( -321 °F )	190 J ( 141 ft-lb )

### Typical Wire Composition %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Ti
0.02	0.8	0.15	0.003	0.01	43.0	22.0	3.0	1.9	1.0

### Typical Wire Composition %

#### Fe

24.4

### Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Al	Cu
0.02	0.6	0.3	0.001	0.016	42	22.4	2.9	0.1	2.2

### Typical Weld Metal Analysis %

Ti	PRE	Fe
1	28	24