# Alloy: COREWELD ST6 | Class: ERCoCr-A

ERCoCr-A • Weld Process: GTAW (TIG)

CERTIFIED TO
**AWS A5.21**
**ASME SFA A5.21**

## AWS CHEMICAL COMPOSITION REQUIREMENTS | DEPOSITED CHEMICAL COMPOSITION % (TYPICAL)

| AWS REQUIREMENT (%) | |
|---|---|
| **C** | 0.9 – 1.4 |
| **Mo** | 1.0 max |
| **Mn** | 1.0 max |
| **Fe** | 3.0 max |
| **Si** | 2.0 max |
| **W** | 3.0 – 6.0 |
| **Cr** | 26 – 32 |
| **Co** | Remainder |
| **Ni** | 3.0 max |
| **Other** | 0.50 max |

### DEPOSITED CHEMICAL COMPOSITION % (TYPICAL)

| TYPICAL DEPOSIT (%) | |
|---|---|
| **C** | 1.3 |
| **Mo** | 0.1 |
| **Mn** | 0.09 |
| **Fe** | 1.0 |
| **Si** | 1.3 |
| **W** | 5.5 |
| **Cr** | 30.6 |
| **Co** | Balance |
| **Ni** | 1.0 |

### DEPOSITED ALL WELD METAL PROPERTIES % (AW)

| HARDNESS | |
|---|---|
| **Hardness (2 layer)** | HRC 40 – 42 |

| CHARPY-V-NOTCH IMPACT |
|---|
| *Not Applicable* |

### RECOMMENDED OPERATION OF WELDING RODS — FLAT WELDING

| DIAMETER | DIAMETER (MM) | AMPS DCEN | VOLTS | SHIELDING GAS |
|---|---|---|---|---|
| 1/8 in | 3.20 | 90–120 | 20–24 | Argon |
| 5/32 in | 4.00 | 120–140 | 20–24 | Argon |

### DESCRIPTION

Cobalt #6 Bare Wire (ERCoCr-A) provides resistance to many forms of chemical and mechanical degradation over a wide temperature range. It bonds well with all weldable grade steels, including stainless.

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