# Eureka Welding Alloys

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#### TECHNICAL DATA FOR EUREKA TRI-COR LC72 FLUX CORED WIRE

**Dated:** March 31, 1995 **Revised:** July 8, 2013

### INTRODUCTION

Eureka Tri-Cor LC72 Flux Cored Wire is a modified H-12 hot working tool steel alloy. The wire has a smooth spray transfer arc with a thin slag system that is easily removable. The wire is formulated to develop high quality weld deposits that are porous and crack free. The wire is designed for multi-pass welding which greatly increases productivity.

### METALLURGICAL CHARACTERISTICS

Eureka Tri-Cor LC72 Flux Cored Wire is a Chromium, Molybdenum, Tungsten, and Vanadium hot working alloy. It has excellent hot hardness, wear resistance and displays reasonable impact resistance. The as welded hardness is 39-44 HRC

### **RECOMMENDED APPLICATIONS**

Eureka Tri-Cor LC72 Flux Cored Wire is an excellent choice for press forging dies where high heat and abrasion are encountered. A typical application is the automobile connecting rod forging. High volume forgings that demand the ultimate in weld metal mechanical properties would be connecting rod, sleeve yoke, and hand tools. These applications are relatively shallow and usually high production.

Other forged products would include earth moving equipment and farm implements, hooks and lever brake bands

and other shallow impressions, such as hand tools, pipe wrenches, and crankshafts.

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### **WELDING PARAMETERS**

Type	Size	Amperage	Volts
Metal Cored Wire	.045" 1.2 mm	125 – 225	16 – 28
Metal Cored Wire	1/16" 1.6mm	180 – 400	25 – 33
Flux Cored Wire	1/16" 1.6mm	180 – 400	25 – 33
Flux Cored Wire	3/32" 2.4mm	350 – 600	27 35
Flux Cored Wire	1/8" 3.2mm	500 – 900	30 38

Use DC Current with a Stick Out of 1/4"-1/2" (6mm-13mm)

## **Recommended Shielding Gases**

75% Argon, 25% Co2 90% Argon, 10% Co2 92% Argon, 8% Co2

100% CO2 will produce low quality arc conditions

## **Gas Flow Rate**

.045" 1.2 mm 20-50 CFH 1/16" 1.6mm 30-60 CFH 3/32" 2.4mm 80-120 CFH 1/8" 3.2mm 80-120 CFH

## **Typical Chemistry**

C Mn Si Cr Mo W V
.20 .50 .50 6.0 2.8 1.8 .50

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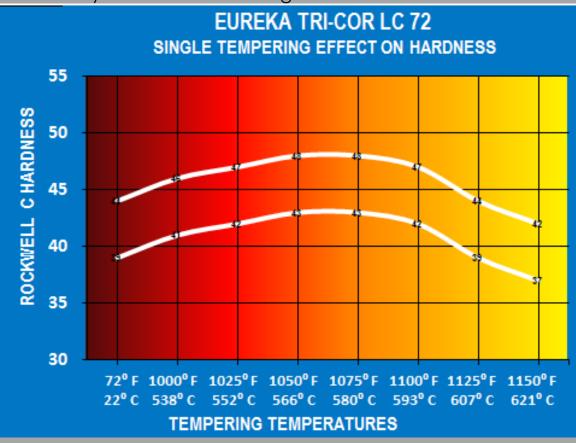
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### **TEMPERING DATA**

The hardness values and tempering temperatures assigned to Eureka's products are only approximations and should only be referred to as a guide.



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