

Eureka Welding Alloys

2000 E. Avis Drive

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TECHNICAL DATA FOR EUREKA ROBOWELD LC72 METAL CORED WIRE

Dated: January 30, 2015

INTRODUCTION

Eureka RoboWeld LC72 Metal Cored Wire was specifically developed for robotic welding of forging dies of most any designs. The RoboWeld wires when used with the **NEWELD** robotic process do not require peening of weld metal due to lower welding stresses. This is accomplished through a combination of five factors;

- 1) High quality wires utilizing the very best raw materials available.
- 2) The programmed pulse arc welding energy has lower penetration, dilution, and heat input.
- 3) The programmed robot maintains precise torch angles, stick out length and travel speeds.
- 4) Programed arc start up and arc ending amperages and voltages are ramped up and down.
- 5) Only a few layers of weld metal are required to achieve nearly pure weld metal.

Eureka RoboWeld LC72 Metal 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 defect free. The wire is designed for multi-pass welding which greatly increases productivity.

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METALLURGICAL CHARACTERISTICS

Eureka RoboWeld LC72 Metal 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 RoboWeld LC72 Metal 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.

WELDING PARAMETERS

TYPE	SIZE	AMPERAGE	VOLTS
Metal Cored Wire	1/16" 1.6mm	180 – 350	24 – 31

**Use DC Current with a Stick Out of
1/2"-3/4" (12mm-19mm)**

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RECOMMENDED SHIELDING GASES

90% Argon, 10% Co2

92% Argon, 8% Co2

GAS FLOW RATE

1/16" 1.6mm 40-80 CFH

Typical Chemistry

C	Mn	Si	Cr	Mo	W	V
.18	.50	.50	6.0	2.8	1.8	.50

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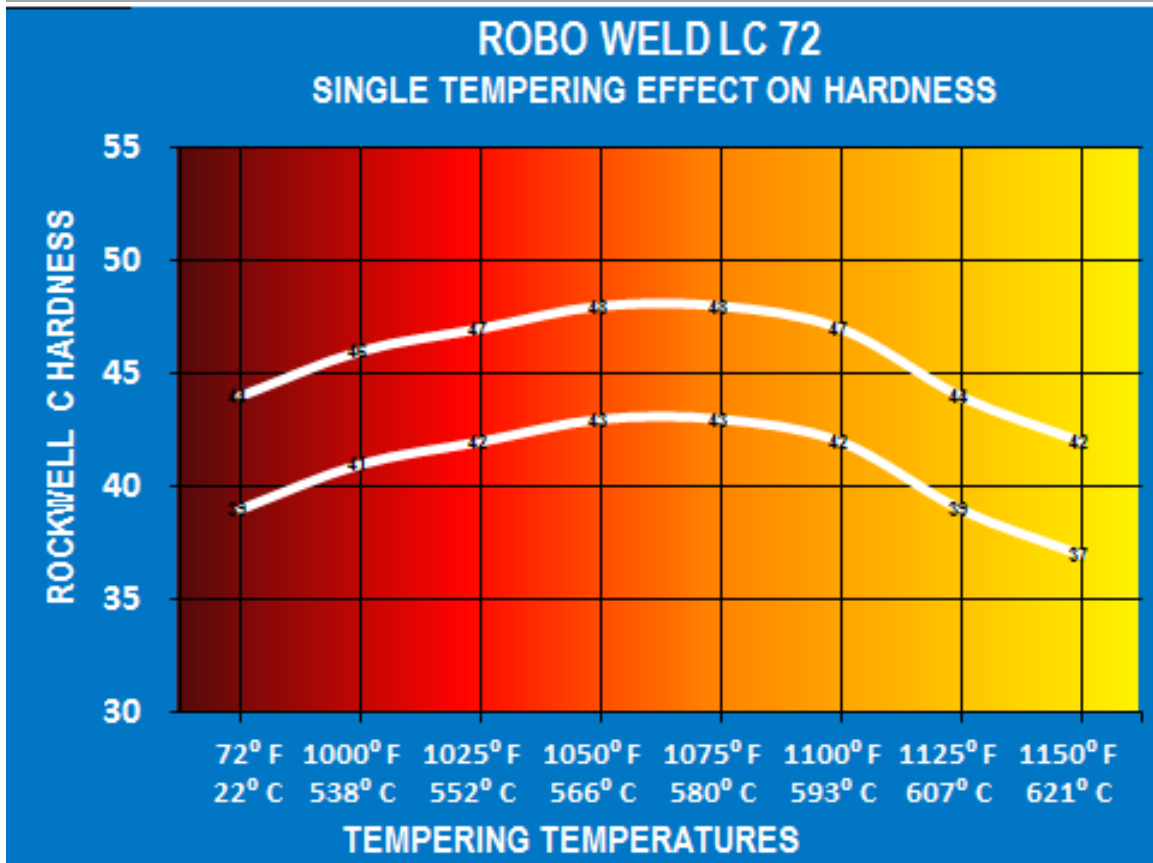
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TEMPERING DATA

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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