

Eureka Welding Alloys

2000 E. Avis Drive

Madison Heights, MI 48071

Phone: 248-588-0001 Fax: 248-585-7711 Toll Free: 800-962-8560

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TECHNICAL DATA FOR EUREKA 72 METAL CORED WIRE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 72 Metal Cored Wire is a H-12 hot working tool steel alloy. The wire has a smooth spray transfer arc with nearly no slag to contend with. 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 72 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 50 - 55 HRC

RECOMMENDED APPLICATIONS

Eureka 72 Metal Cored Wire is used for repairing or building of hot and cold trim and shearing dies, punches, extrusion dies and die casting dies. It 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 1/4" (6mm-32mm)

RECOMMENDED SHIELDING GASES

75% Argon, 25% Co2

90% Argon, 10% Co2

92% Argon, 8% Co2

100% CO2 may produce lower 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
.35	.35	1.0	5.0	1.5	1.3	.30

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PHYSICAL AND OR MECHANICAL PROPERTIES

AS WELDED HARDNESS

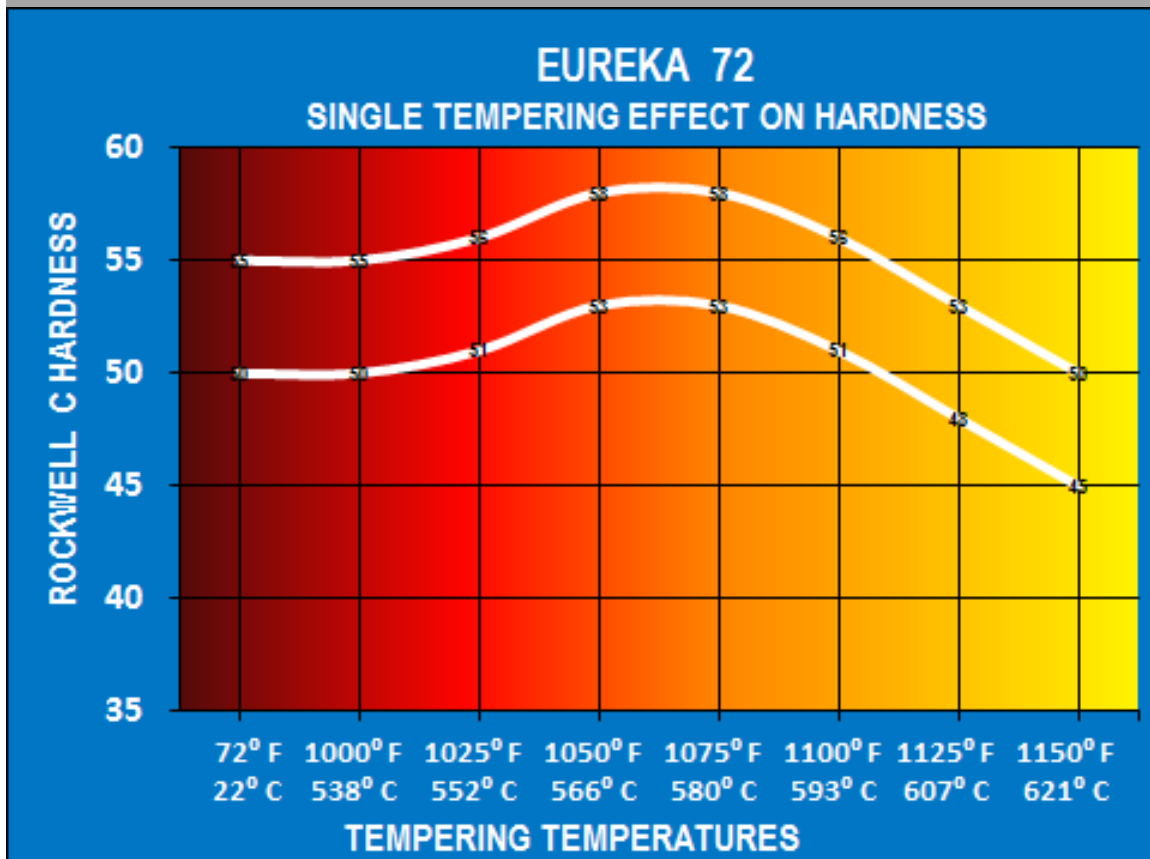
50-55 HRC

TENSILE STRENGTH

185,000 psi

TEMPERING DATA

The tempering data is to be used as a guide. Your results may differ due to the many variables in the utilization of this product.



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