

# Eureka Welding Alloys

2000 E. Avis Drive

Madison Heights, MI 48071

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

E-mail: [info@eurekaweldingalloys.com](mailto:info@eurekaweldingalloys.com) Website: [www.eurekaweldingalloys.com](http://www.eurekaweldingalloys.com)

## TECHNICAL DATA FOR EUREKA CI H-1 METAL CORED WIRE

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka CI H-1 Metal Cored Wire** is a special alloy for welding cast iron. 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 CI H-1 Metal Cored Wire** is designed to form a hard working surface directly on cast iron. The alloy is exceptionally strong and wear resistant which out performs cast iron. The weld deposits display moderate impact resistance. Single or multiple layers are in the low to mid 50 HRC range on cast iron.

## RECOMMENDED APPLICATIONS

**Eureka CI H-1 Metal Cored Wire** is mainly applied on automotive cast irons for form, trim, flange, or hem dies. Used anywhere where metal to metal wear is a factor. Some cross checking is tolerable.

# Eureka Welding Alloys

2000 E. Avis Drive

Madison Heights, MI 48071

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

E-mail: [info@eurekaweldingalloys.com](mailto:info@eurekaweldingalloys.com) Website: [www.eurekaweldingalloys.com](http://www.eurekaweldingalloys.com)

## 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 WELD METAL CHEMISTRY

C Mn Si Co Ni Cu

.13 3.2 .55 3.0 1.5 .10

# *Eureka Welding Alloys*

2000 E. Avis Drive

Madison Heights, MI 48071

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

E-mail: [info@eurekaweldingalloys.com](mailto:info@eurekaweldingalloys.com) Website: [www.eurekaweldingalloys.com](http://www.eurekaweldingalloys.com)

## **ONE LAYER ON CAST IRON CHEMISTRY**

C	Mn	Si	Co	Ni	Cu
.36	3.3	.78	2.7	1.6	.90

**56-57 HRC**

## **TWO LAYERS ON CAST IRON CHEMISTRY**

C	Mn	Si	Co	Ni	Cu
.21	3.6	.70	2.8	1.67	.92

**50-51 HRC**

## **THREE LAYERS ON CAST IRON CHEMISTRY**

C	Mn	Si	Co	Ni	Cu
.17	3.4	.70	2.8	1.68	.90

**40-50 HRC**