

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 650 FLUX CORED WIRE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 650 Flux Cored Wire is a high alloy filler metal. 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 650 Flux Cored Wire is a modified martensitic stainless steel that has an as welded hardness of 50-55 HRC. This alloy has good hot hardness and is resistant to heat checking. The high chromium content promotes good resistance to oxidation at elevated temperatures.

RECOMMENDED APPLICATIONS

Eureka 650 Flux Cored Wire is used for the welding of medium to shallow hammer dies and most any type of press dies. It is often used in connecting rods, crankshafts and yokes. It is good for intricate impressions that require high strength and good wear resistance. It is often used as an overlay on top of Eureka 450.

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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	Ni	W	V
.30	.80	.40	9.0	2.0	2.0	.40	.30

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PHYSICAL AND OR MECHANICAL PROPERTIES

TENSILE STRENGTH 213,000 psi

YIELD STRENGTH 176,000 psi

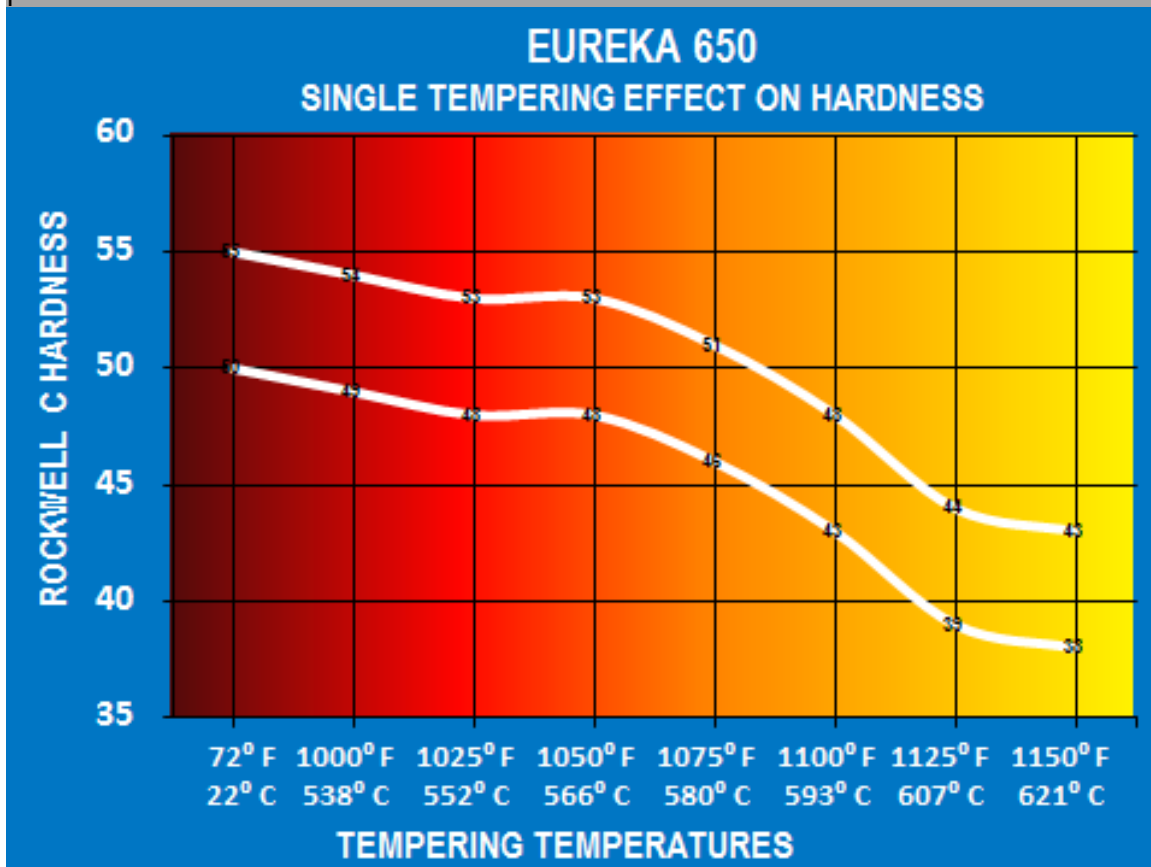
CHARPY "V" NOTCH 13 Ft/lbs.

AS WELDED HARDNESS

50-55 HRC

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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