

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 45 ELECTRODE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 45 Electrode is a smooth running basic coated stick electrode with a modified low carbon H-12 chemistry. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

METALLURGICAL CHARACTERISTICS

Eureka 45 Electrode is a tough Chromium, Molybdenum, Tungsten and Vanadium tool steel alloy having excellent resistance to abrasion, heat checking and wear, yet still machinable as welded. This alloy can accept water spray while in service without excessive checking. This alloy would be classified as a medium hot working grade of tool steel.

RECOMMENDED APPLICATIONS

Eureka 45 Electrode is utilized where press and hammer forging dies are to be reclaimed or partially repaired and conventionally machined. Its properties exceed that of die block material but still remain machinable. It is also used as a tough build-up alloy when a higher alloy is to be deposited on top for increased wear at the flash line.

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WELDING PARAMETERS

SIZE		AMPERAGE RANGE
3/32"	2.4mm	70 – 120
1/8"	3.2mm	100 – 140
5/32"	4.0mm	140 – 170
3/16"	4.8mm	170 – 225
1/4"	6.35mm	225 – 300
5/16"	7.94mm	300 – 375
3/8"	9.5mm	350 – 425

TYPICAL CHEMISTRY

C	Mn	Si	Cr	Mo	W	V
.10	.60	.50	5.0	1.5	1.3	.30

PHYSICAL AND OR MECHANICAL PROPERTIES

AS WELDED HARDNESS

38-43 HRC

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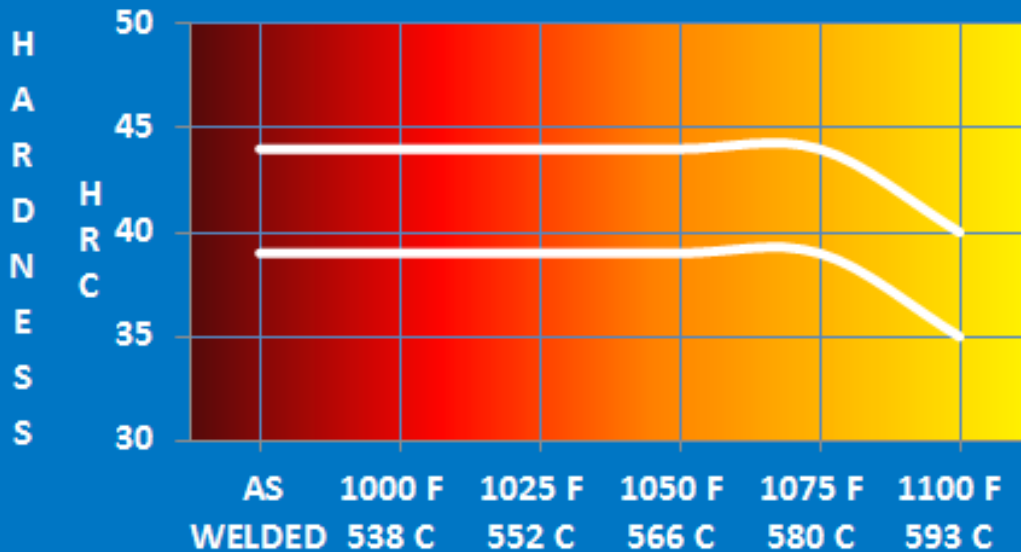
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TEMPERING DATA

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.

SINGLE TEMPER CURVE EUREKA 45



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DOUBLE TEMPER CURVE EUREKA 45

