

Eureka Welding Alloys

2000 E. Avis Drive

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TECHNICAL DATA FOR EUREKA 640 ELECTRODE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 640 Electrode is a smooth running basic coated stick electrode that is a medium alloy filler metal. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

METALLURGICAL CHARACTERISTICS

Eureka 640 Electrodes are a carefully balanced Chromium, Molybdenum and Nickel alloy that has an as welded hardness of 38-43 HRC. This alloy displays high impact properties and moderate abrasion resistance. The major micro constitute consists of bainite which displays high crack resistivity.

RECOMMENDED APPLICATIONS

Eureka 640 Electrodes are often used for the welding of forging dies when upgrading from standard die block metal in the temper two hardness range . It is utilized in the repair of components such as rams, sow blocks and die holders where increased hardness and wear is required over that of the Eureka N-2, Eureka 625 and Eureka 635. It is utilized as an underlay alloy in crack sensitive areas often in the bottom of impressions.

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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	Ni
.12	1.2	.35	2.7	1.7	4.2

PHYSICAL AND OR MECHANICAL PROPERTIES

AS WELDED HARDNESS

38-43 HRC

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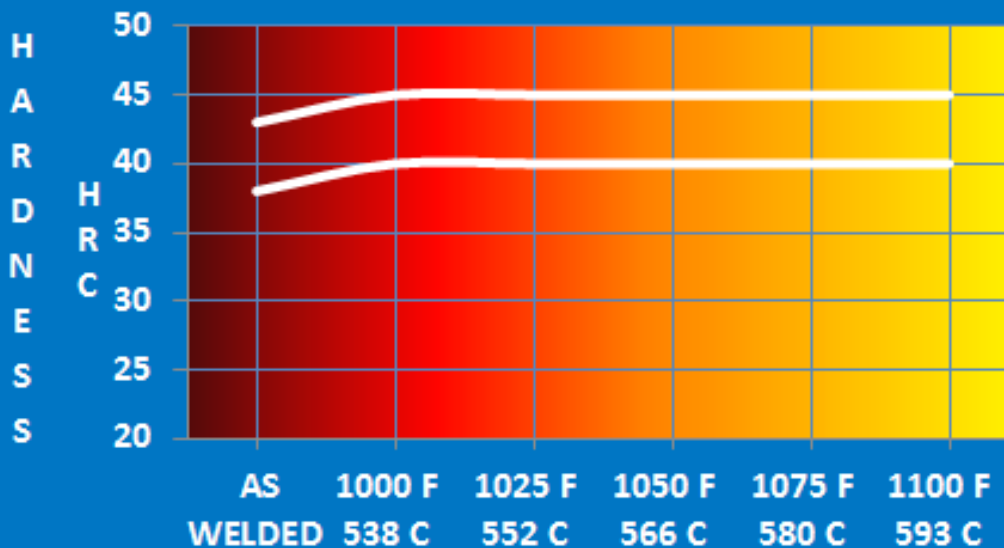
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TEMPERING DATA

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 640



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DOUBLE TEMPER CURVE EUREKA 640

