

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 Website: www.eurekaweldingalloys.com

TECHNICAL DATA FOR EUREKA 635 ELECTRODE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 635 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 635 Electrodes are a carefully balanced Chromium, Molybdenum and Nickel alloy that has an as welded hardness of 34-40 HRC. This alloy displays high impact properties and moderate abrasion resistance. The major micro constituent consists of bainite which displays high crack resistivity.

RECOMMENDED APPLICATIONS

Eureka 635 Electrodes is often used for the welding of forging dies when repairing standard die block metal in the temper two hardness range. It exhibits good wear characteristics and much greater crack resistance when compared to standard die block metal. It is utilized as an underlay alloy for crack sensitive areas in the bottom of impressions. It is also utilized in the repair of shanks and components such as rams, sow blocks and die holders where increased hardness and strength is required over that of the Eureka N-2 and Eureka 625.

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 Website: www.eurekaweldingalloys.com

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 |
| .08 | 1.2 | .35 | 1.5 | 1.1 | 2.3 |

PHYSICAL AND OR MECHANICAL PROPERTIES

TENSILE STRENGTH 166,000 psi

YIELD STRENGTH 102,000 psi

ELONGATION 12%

CHARPY "V" NOTCH 35.3 Ft/lbs. @ 450 f

AS WELDED HARDNESS

34-40 HRC

Eureka Welding Alloys

2000 E. Avis Drive

Madison Heights, MI 48071

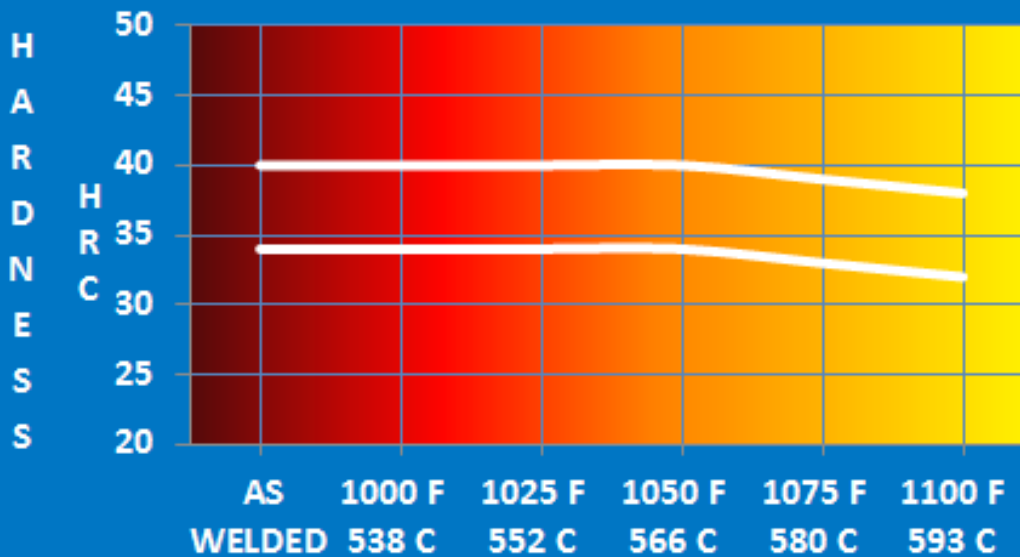
Phone: 248-588-0001 Fax: 248-585-7711 Toll Free: 800-962-8560

E-mail: info@eurekaweldingalloys.com Website: www.eurekaweldingalloys.com

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 635



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 Website: www.eurekaweldingalloys.com

DOUBLE TEMPER CURVE EUREKA 635

