

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 31 TIG RODS

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 31 TIG Rods are drawn, straightened, cut to length, and then cleaned and packaged to obtain microscopically clean weld deposits. These rods are designed for the most critical applications where weld metal cleanliness is most important.

METALLURGICAL CHARACTERISTICS

Eureka 31 TIG Rods is an AISI type H-13 hot working tool steel alloy that is extremely tough. This alloy displays excellent retention of hardness at elevated temperatures yielding excellent abrasion resistance. It also displays good impact resistance imparting good notch toughness and has moderate wear resistance. **Eureka 31** has an as welded hardness of 49 - 54 HRC.

RECOMMENDED APPLICATIONS

Eureka 31 is an excellent choice for press forging type dies where high heat and abrasion are encountered. It is highly resistant to heat checking when subjected to alternating heating and cooling cycles. Several high volume forgings that demand the ultimate in weld metal mechanical properties for the forging industry are connecting rods, hand tools, sleeve yoke, and cam shafts. These applications are relatively shallow and for the most part small. Other forged products would

include earth moving equipment and farm implements such as pipe wrenches, crankshafts, hooks, and cam rings.

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

Recommended Shielding Gases

100% Argon

GAS FLOW RATE

20-40 CFH

TYPICAL CHEMISTRY

C	Mn	Si	Cr	Mo	V
.35	.80	.80	5.0	1.5	1.0

PHYSICAL AND OR MECHANICAL PROPERTIES

AS WELDED HARDNESS

49-54 HRC

Eureka Welding Alloys

2000 E. Avis Drive

Madison Heights, MI 48071

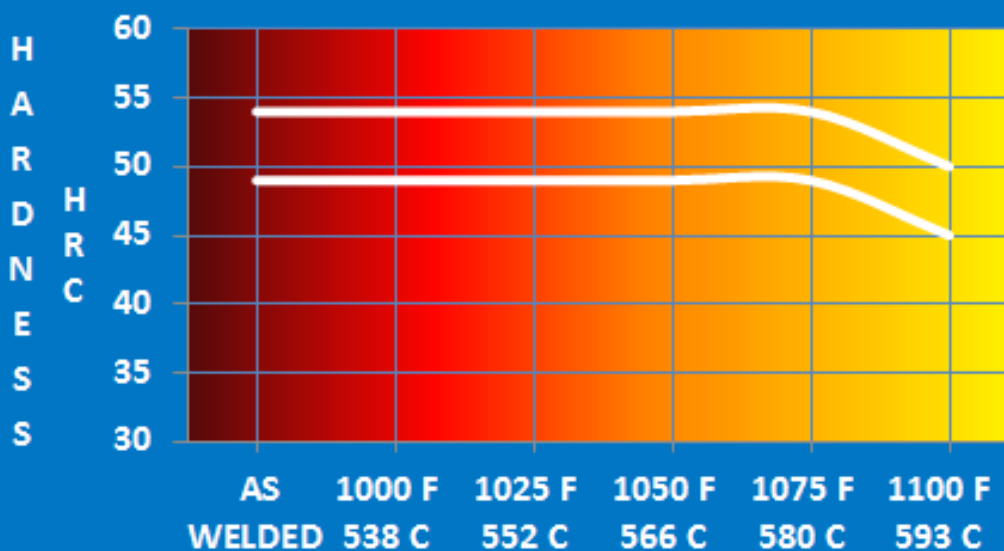
Phone: 248-588-0001 Fax: 248-585-7711 Toll Free: 800-962-8560

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 31



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 31

