

# Eureka Welding Alloys

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## TECHNICAL DATA FOR EUREKA 74 ELECTRODE

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka 74 Electrode** is a smooth running rutile coated stick electrode with an S-7 chemistry. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

## METALLURGICAL CHARACTERISTICS

**Eureka 74 Electrodes** is a AISI type S-7 shock resisting tool steel alloy. The as welded hardness of the deposits will typically be 55–60 HRC which can be tempered to lower hardness when necessary. This alloy works well in cutting or shearing environments at room temperature due to its unique ability of having high strength and being tough.

## RECOMMENDED APPLICATIONS

**Eureka 74 Electrodes** are recommended for welding A.I.S.I. S-7 tool steel, however, because its weld deposits can be tempered to various hardness values, it can also be used to repair other shock-resisting grades plus many types of water-hardening tool steel. Eureka 74 Electrodes work exceptionally well on metal stamping blank trim and pierce dies where edge chipping causes burr on parts. Eureka 74 Electrode is an ideal electrode for building cutting edges on composite cold and hot trim sections and punches.

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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	V
.50	.50	.60	3.3	1.5	.25

## PHYSICAL AND OR MECHANICAL

### AS WELDED HARDNESS

55-60 HRC

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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 74

