

# Eureka Welding Alloys

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## TECHNICAL DATA FOR EUREKA 74 SOLID MIG WIRE

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka 74 Solid MIG Wires** are drawn, cleaned, spooled and packaged to obtain smooth wire feeding with a stable spatter free arc. These wires are designed for the most critical applications where weld metal cleanliness is most important.

## METALLURGICAL CHARACTERISTICS

**Eureka 74 Solid MIG Wires** 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 Solid MIG Wires** 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 work exceptionally well on metal stamping blank trim and pierce dies where edge chipping causes burr on parts. Eureka 74 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	VOLTS
.035" 1.0mm	100 – 225	14 – 28
.045" 1.2mm	125 – 250	16 – 28
1/16" 1.6mm	180 – 400	22 – 33

Use DC Current with a Stick Out of  
1/4" - 1 1/4" (6mm-32mm)

## RECOMMENDED SHIELDING GASES

75% Argon, 25% Co2

90% Argon, 10% Co2

92% Argon, 8% Co2

100% CO2 may produce lower quality arc conditions

## GAS FLOW RATE

20-60 CFH

## TYPICAL CHEMISTRY

C	Mn	Si	Cr	Mo	V
.50	.50	.60	3.3	1.5	.25

## PHYSICAL AND OR MECHANICAL PROPERTIES

### 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

