

Eureka Welding Alloys

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TECHNICAL DATA FOR EUREKA 71M ELECTRODES

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INTRODUCTION

Eureka 71M Electrode is a smooth running rutile coated stick electrode with A.I.S.I. O-1 chemistry. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

METALLURGICAL CHARACTERISTICS

Eureka 71-M Electrode deposits are typical of an A.I.S.I. O-1 oil-hardening grade of tool steel. Weld deposits have as welded hardness range of 50- 60 Rockwell "C". The hardness is highly dependent on preheat temperature, length of time welding, and cooling rate. The composition will respond to the full anneal and hardening cycle of A.I.S.I. O-1 to facilitate machining and rehardening. This electrode displays excellent toughness and shock resistance with moderate wear characteristics.

RECOMMENDED APPLICATIONS

Eureka 71-M Electrodes are excellent for repair of damaged tools and dies in the oil hardening class, especially those of Manganese - Chromium types. Also good for the repair of existing oil hardened tool steels where the deposit must be annealed to facilitate machining and then be hardened and tempered for service use. Compositely fabricated dies utilizing a mild or medium carbon base metal and facing with **Eureka 71-M** on the work surfaces does result in lower tooling costs.

Use on flange dies or form dies where only moderate abrasion is encountered.

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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
.95	1.2	.25	.50	.50

PHYSICAL AND OR MECHANICAL PROPERTIES

AS WELDED HARDNESS

50-60 HRC