

Eureka Welding Alloys

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TECHNICAL DATA FOR EUREKA N3 ELECTRODE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka N3 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 N3 Electrode is a carefully balanced Molybdenum, Manganese and Nickel alloy that has an as welded hardness of 30-35 HRC and tempers up to 35-40 HRC. This alloy displays high impact resistance and moderate abrasion resistance. The microstructure of ferrite and bainite promotes high crack resistivity.

RECOMMENDED APPLICATIONS

Eureka N3 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.

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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	Mo	Ni
.08	.55	.55	2.0	4.0

PHYSICAL AND OR MECHANICAL PROPERTIES

AS WELDED HARDNESS

30-35 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.



