

# Eureka Welding Alloys

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## TECHNICAL DATA FOR EUREKA 420 SOLID MIG WIRE

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka 420 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 420 Solid MIG Wire** is a martensitic stainless steel alloy. The as welded hardness is 50-55 HRC . **Eureka 420** weld deposits have a high tensile strength and are quite corrosion resistant. The weld deposits are ideally suited for heavy build ups in moderate wear conditions. The weld deposits flow very freely, producing extremely dense, crack, and porosity free weld deposits.

## RECOMMENDED APPLICATIONS

**Eureka 420 Solid MIG Wire** is for the welding of 410 and 410NiMo and 420 castings and wrought metals. It is used in the repair, reclamation and joining of die casting dies, forging dies, arbors and shafts. It can be used as an underlay material in crack sensitive areas when a harder alloy is to be used as an overlay. Deposits polish to a high luster with a medium resistance to abrasion and are highly crack resistant due to its high tensile strength.

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## **WELDING PARAMETERS**

<b>SIZE</b>	<b>AMPERAGE</b>	<b>VOLTS</b>
<b>.035" 1.0mm</b>	<b>100 – 225</b>	<b>14 – 28</b>
<b>.045" 1.2mm</b>	<b>125 – 250</b>	<b>16 – 30</b>
<b>1/16" 1.6mm</b>	<b>180 – 400</b>	<b>22 – 33</b>

**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  
98% Argon, 2% O2**

## **GAS FLOW RATE**

**30-60 CFH**

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## **TYPICAL CHEMISTRY**

<b>C</b>	<b>Mn</b>	<b>Si</b>	<b>Cr</b>
<b>.35</b>	<b>.30</b>	<b>.30</b>	<b>13.0</b>

## **AS WELDED HARDNESS**

**50-55 HRC**