

Eureka Welding Alloys

2000 E. Avis Drive

Madison Heights, MI 48071

Phone: 248-588-0001 Fax: 248-585-7711 Toll Free: 800-962-8560

E-mail: info@eurekaweldingalloys.com Website: www.eurekaweldingalloys.com

TECHNICAL DATA FOR EUREKA 521 METAL CORED WIRE

Dated: Jan 8, 2015

INTRODUCTION

Eureka 521 Metal Cored Wire is a cobalt based filler metal. The wire has a smooth spray transfer arc with nearly no slag to contend with. The wire is formulated to develop high quality weld deposits that are porous and crack free. The wire is designed for multi-pass welding which greatly increases productivity.

METALLURGICAL CHARACTERISTICS

Eureka 521 Cored Wire is a cobalt based modified 21 type hard facing alloy. It offers combined resistance to impact, heat, abrasion, corrosion, scaling and thermal shock. It has far greater resistance to shock and heat checking than typical Cobalt base alloys normally have. **Eureka 521** weld deposits have excellent corrosion resistance in oxidizing atmospheres and chlorine type solutions. It also has resistance to scaling up to 1800 F. It has good hot hardness well at extreme temperatures. The deposits are also highly resistant to heat checking.

Eureka Welding Alloys

2000 E. Avis Drive

Madison Heights, MI 48071

Phone: 248-588-0001 Fax: 248-585-7711 Toll Free: 800-962-8560

E-mail: info@eurekaweldingalloys.com Website: www.eurekaweldingalloys.com

RECOMMENDED APPLICATIONS

Eureka 521 Metal Cored Wire is used in press forging dies, hot trimming dies, punching and shearing dies, extrusion dies and dummy blocks. Eureka 521 offers a combined resistance to impact, heat, abrasion, corrosion, scaling and thermal shock. Eureka 521 weld deposits are the toughest of the cobalt base alloys and will retain its hardness well at elevated temperatures. Overlaying hot press forging dies with **Eureka 521 Metal Cored Wire** can double or triple die life over conventional die block steels.

WELDING PARAMETERS

TYPE	SIZE	AMPERAGE	VOLTS
Metal Cored Wire	.045" 1.2 mm	100 – 225	15 – 28
Metal Cored Wire	1/16" 1.6mm	320	31

Use DC Current with a Stick Out of
1/2"-1 1/4"

RECOMMENDED SHIELDING GASES

90% Argon, 10% Co2

92% Argon, 8% Co2

GAS FLOW RATE

.045" 1.2 mm 20-50 CFH

1/16" 1.6mm 50-80 CFH

TYPICAL CHEMISTRY

C	Mn	Si	Cr	Mo	Ni
.20	.55	.60	31.6	4.9	3.7

PHYSICAL AND OR MECHANICAL PROPERTIES

Welded Hardness

30-37 HRC

Work Hardens to

50 HRC