

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 ULTRA TECH 505 SOLID MIG WIRE

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INTRODUCTION

Eureka Ultra Tech 505 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 Ultra Tech 505 Solid MIG Wires has a duplex microstructure of delta ferrite in a matrix of austenite. The large quantity of delta ferrite induces a high level of ductility which enables crack free welds in highly constrained sections of virtually all types of iron base chemistries. The weld deposits have very high strength, work harden, and have good corrosion resistance.

RECOMMENDED APPLICATIONS

Eureka Ultra Tech 505 Solid MIG Wires are used for joining of all types of steels, tool steels, stainless steels, cast steels and any type of unknown steels. It has excellent strength, high impact resistance and high crack resistance. Eureka Ultra Tech 505 is a great general purpose maintenance alloy. It is often used as an underlay weld deposit.

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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 Ni

.11 1.5 .50 29.0 9.0

PHYSICAL AND OR MECHANICAL PROPERTIES

TENSILE STRENGTH 116,000 psi

YIELD STRENGTH 80,000 psi

ELONGATION 25%

WORK HARDENS UP TO 40 HRC