

MUGGY WELD

2010 CATALOG

&

PRICE LIST

1-866-684-4993

www.MuggyWeld.com

Products:

Super Alloy 1

Multi-metal, low temperature solder with a melting point of 350°. Its unique properties allow you to join copper, aluminum, brass, pot metal, white metal, zinc die cast, stainless, galvanized, pewter and steel in any combination. This rod allows you to join metals such as steel to aluminum, which welding instructors are STILL teaching can't be done.

Super Alloy 5

The #1 selling aluminum welding rod in the maintenance industry. Ideal for all types of aluminum: cast, sheet, diamond plate, channel, as well as magnesium and all types of white metals. With a melting point of 600°, it bonds through dirt, oil, paint, grease--and can be used in any position. This is not the rod demonstrated on pop cans at the county fair!

SSF-6 56% Silver Solder

SSF-6 has a tensile strength of 71,000 psi. 1 inch of material flows up to 18 inches to get to the hard to reach areas. Ideal for cast iron, stainless, copper, brass, bronze, chrome-moly, and steel--in any combination. Useful for refrigeration, hydraulic repair, air conditioning, antique repair and more.

72 Burnt Cast Iron Electrode

Useful for heat affected cast iron such as exhaust manifolds

77 Cast Iron Electrode

Without preheating, without special cooling, without recracking. Don't be afraid of cast iron!! Save those expensive parts: cast iron exhaust manifolds, cast iron engine blocks, Caterpillar parts, pump housings, tools and lots more. Ideal for heavy machinery, trucking, bus lines, automotive, marine, and RVs.

SUPER ALLOY 1

The multi-metal solder



Super Alloy 1 joins all white metals including pot metal, zinc die cast, lead and aluminum and also will join any of these metals to practically any other metal: bronze, steel, copper, or brass.

Unique Characteristics:

- 350°F working temperature prevents warpage and base metal damage
- Can be used to join aluminum with a soldering iron
- Rod and flux work synergistically to prevent oxidation during soldering.
- Super Alloy 1 flux is completely non-corrosive and washes off with warm water

Tensile Strength up to p.s.i.	Base Metal Bonding Temp. (F)	Size
17,000	350°	1/8"

Super Alloy 5

The 600° Aluminum Weld

The simplest aluminum torch repair ever developed!



- Flows like silver solder on thin aluminum
- Bonds at half the melting point of aluminum
- Matching flux not only cleans the work area, but also serves as an absolute temperature guide
- Filler rod bonds right through paint, oil, dirt, grease, etc.
- Can be machined, drilled, tapped, threaded, plated, anodized or even bent without causing pinholes or porosity
- Creates a malleable bond that is stronger than the parent metal
- Works with any heat source: propane, natural gas, oxy-acetylene, Mapp gas.
- Makes an excellent tig rod!

Tensile Strength up to p.s.i.	Base Metal Bonding Temp. (F)	Size
30,000	600°	3/32"

Mechanics who usually experience difficulty in welding damaged aluminum find it easy to make superior repairs using Super Alloy 5. This highly alloyed material can easily be applied without the base metal sagging, collapsing or even wrinkling. Super Alloy 5, while being a perfect color match, actually flows on aluminum much as a brazing rod does and without damage to the base metal. Any mechanic who can braze can easily use Super Alloy 5.

SSF-6 SILVER SOLDER

56% SILVER BRAZING ALLOY

- Cadmium Free silver solder
- Special "fast flow" flux coating provides twice the base metal cleansing action of conventional silver flux coatings
- No odors from rubberized compounds yet the flux coating is totally flexible and non-fragile
- The only flux coated silver solder strong enough to clean oxidized stainless steel
- Ideal for food and pharmaceutical applications
- Wets even burned stainless steel.
- 1" of our high content silver solder will flow 18"--the only silver solder manufactured with this capability

Applications:

Steel, stainless steel, cast iron, copper, brass and bronze. Can be used on any combination of these metals.

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal	Maximum Value up to
Tensile Strength	71,000 PSI
Yield Strength	60,000 PSI
Elongation	25%
Conductivity	14.3
Density	9.59/cm ³
Hardness	Brinell 130

TORCH SETTING: Slightly Carburizing

WORKING TEMPERATURE: 1210° F

MELTING RANGE: 1140° F to 1200° F

Welding Techniques:

After cleaning metal, preheat generally to 350° F
Heat the joint area to 800° F. Melt off some flux
and allow it to flow throughout the joint. Add alloy.

72 BURNT CAST IRON ELECTRODE

Available in 1/8"

There are occasions in industry where exceedingly dirty cast iron is encountered. 77, which bonds well to most cast iron does have a limitation. Since 77 has controlled penetration, which is ideal for non-cracking and machinability, it may not be able to bond exceptionally dirty cast iron. 72 should be used instead. It has a high penetration, can anchor deep into the subsurface of dirty cast iron, and seals in porosity generating contaminates prior to finish welding with 77. 72 is used for a cladding operation, then the weld is completed with 77.

72 is our recommendation for welding cast iron exhaust manifolds.

Tensile (as welded):	62,000 PSI
Yield Strength:	50,000 PSI
Elongation:	20%
Hardness:	RC 39

Welding positions: flat, vertical (up), horizontal, vertical (down), overhead

Welding techniques: Use stringer or moderate weave technique. When cladding, cover the entire base surface prior to finish welding.

Applications: for non-machinable welds on exhaust manifolds, furnace grates, cast iron stoves, machine bases etc.

How to Apply

Begin by beveling the joint. Drill holes 1/2" from each end of the crack to prevent further cracking while welding. Tack weld to retain alignment. Use AC or DC with reverse polarity. (70-110 amps for 1/8" rods, 95-140 amps for 5/32" rods) Maintain a short to medium arc and make short passes and peen each pass promptly to chip off slag before cooling. Continue back whipping and overlapping until all deposits are connected. Cool naturally.

77 CAST IRON ELECTRODE

Available in 1/8"

This premium electrode produces welds which are high strength, crack resistant, porosity free, and are machinable when applied to a wide variety of cast irons. The special tri-metal core wire has a high current carrying capacity and the specially designed coating converts the impurities of the base metal into slag instead of being trapped in the deposit.

Tensile (as welded):	52,500 - 55,000 PSI
Tensile (slightly worked):	56,100 - 58,250 PSI
Elongation (in red zone):	71%
Elongation (in weld room temp. 70):	59%
Yield (as welded):	44,550 PSI
Yield (slightly worked):	45,750 PSI
Color match (Grey Iron):	Good
Machinability:	Excellent
Weld Appearance:	Excellent
Weldability:	Excellent

How to Apply

Begin by beveling the joint. Drill holes 1/2" from each end of the crack to prevent further cracking while welding. Tack weld to retain alignment. **Use AC or DC with reverse polarity. (60-110 amps for 1/8" rods, 90-140 amps for 5/32" rods)** Maintain a short to medium arc and make short passes and peen each pass promptly to chip off slag before cooling. Continue back whipping and overlapping until all deposits are connected. Cool naturally.

COOL BLUE HEAT PASTE

All natural heat absorption paste



- This putty-like material **protects heat sensitive areas** such as glass, plastic, rubber, chrome, vinyl, and wood from damage or destruction.
- **Eliminates warpage**
- Enables you to make the repair **without disassembling parts**, saving time and money
- Completely **re-useable**. That means it can be used liberally with no waste.

Note: Early attempt at blocking heat in this manner included materials containing asbestos. They have been discontinued for obvious health and safety reasons.

2010 PRICE LIST

Item	Price	Shipping
Cast Iron		
1/2 lb. 77 1/8" 7 rods	\$55.00	\$9.00
1 lb. 77 1/8" 14 rods	\$105.00	\$11.00
<u>5 lb. 77 1/8" special</u> 70 rods PLUS 14 rods FREE	\$525.00	\$21.00
<u>Cast Iron Combo #1</u> 7 rods 77 1/8" 7 rods 72 1/8"	\$95.00	\$13.00
Burnt Cast Iron		
1/2 lb. 72 1/8" 7 rods	\$45.00	\$9.00
1 lb. 72 1/8" 14 rods	\$85.00	\$11.00
<u>5 lb. 72 1/8" special</u> 70 rods PLUS 14 rods FREE	\$425.00	\$21.00
<u>Exhaust Manifold Repair Kit</u> 2 rods 77 2 rods 72	\$39.00	\$9.00

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Item	Price	Shipping
Super Alloy 1		
Starter Kit 5 18" rods/1 jar flux	\$49.00	\$9.00
Full Kit 10 18" rods/1 jar flux	\$89.00	\$12.00
<u>Combo #3</u> 20 18" rods alloy 1/2 jars flux 7 FREE rods alloy 5/1 jar flux	\$178.00	\$20.00
Super Alloy 5		
Starter Kit 7 18" rods/1 jar flux	\$49.00	\$9.00
Full Kit 20 18" rods/2 jars flux	\$89.00	\$10.00
<u>Combo #2</u> 40 18" rods #5/2 jars flux 7 FREE rods #5/1 jar flux	\$178.00	\$12.00
Silver Solder		
Starter Kit 4 18" flux coated rods	\$49.00	\$9.00
Full Kit 10 18" flux coated rods	\$99.00	\$11.00
Heat Paste		
1 lb. Jar	\$49.00	\$9.00
2 lb. Jar	\$79.00	\$13.00
Videos		
<u>CDR with all videos on the site:</u> Windows Media format	\$10.00	FREE

Item	Price	Shipping
Combo Values		
<u>Combo #1</u> 10 18" rods #1/1 jar flux 20 18" rods #5/2 jars flux 7 FREE rods #5/1 jar flux	\$178.00	\$16.00
<u>Combo #4</u> 5 18" rods #1/1 jar flux 7 18" rods #5/1 jar flux	\$98.00	\$10.00
<u>Combo #5</u> 5 18" rods #1/1 jar flux 7 18" rods #5/1 jar flux 4 rod kit silver solder	\$147.00	\$14.00
<u>Combo #6</u> 10 18" flux coated rods silver solder 10 18" rods #1/1 jar flux 20 18" rods #5/2 jars flux 7 FREE rods #5/1 jar flux	\$267.00	\$18.00
<u>Combo #7</u> 5 18" rods #1/1 jar flux 4 18" flux coated rods silver solder	\$98.00	\$10.00
<u>Combo #8</u> 7 18" rods #5/1 jar flux 4 18" flux coated rods silver solder	\$98.00	\$10.00
<u>Combo #9--starter kits of everything</u> 4 18" flux coated rods silver solder 5 18" rods #1/1 jar flux 7 18" rods #5/1 jars flux 1/2 lb 77 1/2 lb 72 10 FREE rods #5/1 jar flux	\$247.00	\$20.00

All prices US currency. Products typically mailed USPS within 72 hours of receipt of funds. Shipping prices are for priority mail only, UPS and FedEx overnight or 2nd day air incur additional shipping charges, call for a quote. International orders please call for shipping quotes.

Sorry, no refunds. Exchanges accepted for defective merchandise ONLY. \$35 fee for NSF funds. Prices subject to change without notice.

