

Inweld 6013 General Purpose – Mild Steel

Alloy E6013
AWS A5.1 E6013



AC/DC +/- (reverse or straight polarity)

Description and Applications:

- *General purpose mild steel electrode designed for thin sheet metal or light gauge steel but with sufficient penetration for welding medium gauge steels.
- *Excellent operating characteristics when using small diameter electrodes at lower amperage and with lower open-circuit AC voltage.
- *Used in all-positions including vertical downward and overhead. This electrode is one of the easiest to use because of its wide operating range and restrike characteristics.
- *Soft, steady and quiet arc, low spatter and a slag that seems to peel away. This electrode gives off very little smoke or fumes - giving it superb operator appeal.
- *Commonly used on many mild, low alloy and medium carbon steels, including tack welds on thin sheet metal, automobiles, metal furniture, farm equipment, window frames, iron grills, fences, storage tanks and general construction.

Procedure:

A clean weld area will always yield the best results. You can use a small AC machine or a DC machine (electrode +/- reverse or straight polarity). AC is best for preventing arc blow. DC+ (reverse polarity) produces deeper penetrating welds while DC-(straight polarity) should be used on thinner gauges. Set your amperage to the proper range for this size electrode and the welding position you are using. A medium arc length of approximately 1/8" maintained ahead of the weld puddle will yield good wetting action and allow unwanted gases to escape. Flat and horizontal welding: hold the electrode at an angle 10-15 off 90 and use a slight back and forth whipping motion. Overhead welding: use a slight circular motion. Vertical-down welding: use stringer beads or a slight weaving technique keeping the weld puddle in place by pointing the electrode up into the puddle. Be sure to choose and amperage in the upper end of the recommended range. Vertical-up welding: should be done using the shelf or step method, adding layer on top of layer. Do not use the whipping motion. Use amperage setting in the lower end of the recommended range. Allow the part to air cool and remove slag with a chipping hammer and brush to a nice finish.

Recommended Parameters	Diameter	Recommended Amperage	
		(F)	(V & O)
	1/16" (1.6mm)	20-40	20-40
	5/64" (2.0mm)	25-60	25-60
	3/32" (2.4mm)	50-100	50-90
	1/8" (3.2mm)	80-130	60-110
Tensile Strength up to 69,000 psi	5/32" (4.0mm)	140-180	110-160
	3/16" (4.8mm)	180-230	120-160

Warning

- This product, when used for welding or cutting, produces fumes or gases which may contain chemicals known to the state of California to cause birth defects (or other reproductive harm), and in some cases cancer. (California Health & Safety Code 25249.5 et seq.)
- Read American National Standards Z49.1, "Safety in Welding Cutting and Allied Processes," from American Welding Society, 550 N.W. LeJeune Rd., Miami, FL 33126; OSHA Safety and Health Standards, 29 CFR 1910, from U.S. Government Printing Office, Washington, DC 20402.

Fumes and Gases can be hazardous to you health.

- Before use, read and understand the materials Material Safety Data Sheet (MSDS), the manufacturer's instructions and your employers safety practices.
- If MSDS is not enclosed, obtain one from your employer.
- Keep your head out of the fumes. See section 5 of the MSDS for specific fume concentration limits.
- Use enough ventilation exhaust at the arc or both to keep fumes and gases from your breathing zone and general area. If needed, use a proper respirator.
- No hazards exist before this product is used in arc welding. Electric Shock can kill.
- Always wear dry insulating gloves.
- Insulate yourself from work and ground.
- Do not touch live electrical parts.
- ARC Rays can injure eyes and burn skin.
- Wear welding helmet with correct filter.
- Wear correct eye, ear and body protection.
- Welding can cause fire or explosion" Do not weld near flammable material.
- Watch for fire, keep extinguisher nearby.



Although reasonable care has been taken in the preparation of the information herein, Inweld Corporation, makes no representations and assumes no responsibility as to the accuracy or suitability of information for application to purchaser's intended purpose or for consequences of its use. Judgments as to the suitability of information for purchaser's purposes are purchaser's responsibility.