



Aluminum Maintenance Electrode
for Aluminum Alloys Containing Magnesium

Xuper[®] 2109



- Superior crack resistance on castings and wrought alloys
- Can be used for BOTH joining and cladding
- Welds out-of-position

Xuper[®] 2109

Xuper 2109 is an extruded electrode formulated to weld aluminum alloys containing magnesium. This easy to handle electrode runs smoothly and leaves little or no spatter. Deposits are porous-free with a uniform profile. Xuper 2109 is particularly useful when welding 5xxx and 6xxx aluminum alloys either in the flat position or out-of-position.

TECHNICAL DATA

Typical Values

Tensile Strength:	35,000 psi (240 N/mm ²)
Yield Strength:	29,000 psi (200 N/mm ²)
Hardness:	70 BHN
Current & Polarity:	DCEP (+)
Electrical Conductivity:	IACS 39%
Color Match Properties:	Good, but will marginally darken after anodizing

SUGGESTED WELDING PARAMETERS:

Diameter	Amperage
3/32" (2.4mm)	55 - 80
1/8" (3.2mm)	110 - 145
5/32" (4.0mm)	120 - 160

PROCEDURE FOR USE

PREPARATION: Clean weld area to remove contaminants and surface oxides. Parts thicker than 1/8" (3.2mm) should be beveled to have an included angle of 60-75°. Preheat heavy sections or sections thicker than 1/4" (6.4mm) within a 400 - 500°F (approx. 204° - 260°C) range.

Note: Preheating reduces the need to use high amperage levels.

TECHNIQUE: Start arc either by lightly drawing the electrode across the work piece or use a copper starting block. To help control the arc response, it is important to maintain a very short stand-off distance and to keep the electrode almost perpendicular. Back-whip craters and allow to cool before de-slugging.

POST-WELDING: Slag removal is very important. It can become corrosive if not removed. Scrub part in hot, soapy water then rinse.

TYPICAL APPLICATIONS

- Tank and Container Repair
- Structural Frame Repair
- Truck Floor Bodies
- Aluminum Castings
(Grades containing magnesium)

Observe normal welding practices, respiratory protection and proper air flow pattern advised. For general welding practices, see AWS publications Z49.1 "Safety in Welding and Cutting and Allied Process". Welding is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before beginning welding operations. DO NOT operate welding equipment or use welding materials before you have thoroughly read the proper instruction manual(s). Please refer to the Eutectic internet site for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS, AND/OR THE INSTRUCTIONS OF WELDING EQUIPMENT OR MATERIAL MANUALS, MAY BE HAZARDOUS TO YOUR HEALTH.



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