



Aluminum Maintenance
& Repair Electrode

EutecTrode® 3021/4021



- Aluminum-silicon alloy
- Maintenance and repair combat alloy
- Good color match with most aluminum casting grades

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These electrodes can be used to weld heavy aluminum castings, long joints, for filling defects and rebuilding missing sections. They can also be used for welding extrusions, piping and furniture, as well as aluminum castings containing manganese and/or silicon. Weld deposits are dense and porosity-free. These user-friendly electrodes have a smooth and stable arc and slag is easily removed after the part has cooled down.

TECHNICAL DATA

Typical Values	
Typical Tensile Strength:	34,000 psi (235 N/mm ²)
Typical Yield Strength:	28,000 psi (190 N/mm ²)
Hardness:	45 BHN
Electrical Conductivity:	IACS%: 39
Polarity:	DCEP (+)
Color Match Properties:	Good, but will darken after clear anodizing

DIAMETER	1/8" (3.2mm)
Amp	90-140

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 (204°-260°C) range.

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

WELDING 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-slagging.

POST WELDING

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

TYPICAL APPLICATIONS

- Engine Blocks
- Cast Differential Housings
- Various Aluminum Pump Casings
- Heavy Gauge Aluminum Truck Bodies
- Foundry Patterns
- Aluminum Rails

