

High Strength Aluminum Brazing Rod

# EutecRod<sup>®</sup> 21 FC - E



## BRAZING

- Rapid solidification rate for butt and beveled butt joints
- High strength fillet and bead joints on sheet, extruded and cast aluminum
- Excellent bridging properties for poor fit joints
- Aluminum joining without melting base metal



## PRODUCT DESCRIPTION:

EutecRod 21 FC-E is an extruded flux-coated brazing alloy that gives excellent performance in a variety of aluminum joining applications.

## APPLICATIONS:

- Elbows
- Casting Molds
- Aluminum Housings
- Cookware
- Oil Pan
- Transmission Housings
- Frames
- "Trash" Pumps
- Furniture

## TECHNICAL DATA:

### *Physical and Mechanical Properties:*

Tensile Strength:	33,000 psi, average
Elongation, in <sup>2</sup> :	25%
Brinell Hardness:	92
Solidus:	1,090°F (588°C)
Liquidus:	1,170°F (632°C)
Brazing Range:	1,120°F - 1,190°F (604°-643°C)

Base Metals: 1XXX, 3XXX, 4XXX, and commonly used 5XXX and 6XXX grades. For wrought and cast aluminum as well as aluminum alloys.

Equipment: Oxy-Acetylene torch

Sizes Available:

3/32" x 18"

1/8" x 18"

## PROCEDURE:

Thoroughly clean joint area. For pieces heavier than 1/8", butt joints, broken sections or cracks should be beveled to 60° - 80° vee. (not necessary for thinner sections). Leave a 1/16" to 1/8" gap and maintain alignment of parts.

Adjust oxy-acetylene torch for a slightly excess acetylene flame. Maintain a distance of 1" to 3" between flame cone and the base metal and begin preheating.

Melt a drop of flux off the end of the rod onto the beginning of the joint area. Continue heating, keeping the torch in constant motion until the flux liquefies. This is a signal that the proper brazing temperature has been reached.

With the flame cone now approximately 1/2" to 1" from the base metal, deposit a drop of alloy, placing the flame on it until it flows out and bonds. Continue depositing more alloy. Use a bead forming technique.

Care should be taken not to melt the base metal. EutecRod 21 FC-E's melting temperature is lower than aluminum. This EutecRod does not require melting of the base metal.

For very best results, use with supplemental EutecTor® Flux 21-X.

After the joint is completed, remove flux residues by washing in warm water. For optimum results, use Eutectic Pre/Post Cleaner 1002.

## YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



**Eutectic Corporation**  
N94 W14355 Garwin Mace Drive  
Menomonee Falls, WI 53051 USA  
P 800-558-8524 • F 262-255-5542  
[www.eutectic.com](http://www.eutectic.com)

**Eutectic Canada**  
428, rue Aime Vincent  
Vaudreuil-Dorion, Quebec J7V 5V5  
Phone: (800) 361-9439  
Fax: (514) 695-8793  
[www.eutectic-na.com](http://www.eutectic-na.com)

**Eutectic Mexico**  
KM 36.5 Autopista  
Mexico-Quertaro  
54730 Cautitlan-Izcalli  
Estado de Mexico, Mexico  
Phone: 011 (52) 55-5872-1111  
e-mail: [eutectic@eutectic.com.mx](mailto:eutectic@eutectic.com.mx)