



Eutectic 21F

Low heat-input brazing alloy for joining and repair of aluminium alloys

Description :

An extruded flux-coated aluminium rod for use with the oxy-acetylene process. Ideal for the repair and fabrication of wrought and cast aluminium alloy components, including aluminium-silicon alloys and aluminium-magnesium (1.5%Mg max) alloys. Not suitable for parts requiring an anodised finish.

Technical Data :

Physical and Mechanical properties :

Tensile Strength :	160-220Mpa
Elongation A5(%) :	10-15%
Electrical Resistivity :	0.04Ω mm ² /m
Hardness :	40-50 BHN
Bonding Temperature :	~550°C

Applications :

Eutectic 21F exhibits excellent thin flowing characteristics with a low melting point, making it ideal for thin sections and minimum distortion effects.

Construction frames, panels, tubular components, body frames, containers, machine housings, casings, etc. Also suitable for rebuilding of missing parts, eg casting defects.

Procedure for Use :

Preparation :

Ensure that areas to be welded are free from contaminants, oxides, etc. Use a stainless steel brush or apply a suitable degreasing agent depending upon the degree of contamination. Round off edge and corners if practical in order to avoid overheating or melting of the base metal.

Preheating :

Generally a local preheat is sufficient, however on large and complicated components, a deep and uniform preheat of between 150-200°C may be necessary.

Braze Welding :

Heat component broadly using a slightly carburising flame setting.

Deposit a small amount of flux from the end of the rod to the beginning of the joint area.

Continue heating until the flux liquefies (this indicates the point as which brazing can commence).

Deposit a small amount of filler rod (keep the torch in a constant rotating movement in order to avoid local overheating) until the alloy flows and bonds. Continue in this manner, with the inner flame cone 15-35 mm from the workpiece, until the joint has been completed.

As 21F melts at a lower temperature than aluminium, care should be taken to ensure that base materials DO NOT melt.

Flux Removal

Flux residues may be removed by washing parts in warm water and scrubbing with a strong fibre brush.

Packaging and Storage:

Note : Avoid the risk of coatings becoming damaged or absorbing moisture, by storing in a safe and dry location.

Rod Identification : Pink Flux Coating

Diameters Available : 21F 3.0mm

Available for GTAW application (bare rod) as TIG 21 2.4mm. & 3.2mm

DIGITALWELD

J.D.M Holdings Ltd

Unit D/17 Hobill Avenue, Wiri, Manukau, 2104. P.O Box 97622 Manukau City, Manukau 2241, New Zealand

Ph: +64 (09) 263 7099 Fax: +64 (09) 263 5062 Email: sales@digitalweld.co.nz Website: www.digitalweld.co.nz