



Fry Technology  
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## **RMA 508 Series Solder Paste**

### ***Rosin, Mildly Active***

#### **Description**

Fry RMA 508 is a mildly activated, synthetic rosin flux. It yields a clear, colorless, hard residue even after exposure to open flame reflows. The residue is also non-corrosive. Solder paste made with this flux type has good wetting on tin, copper, silver, brass and plated surfaces. RMA 508 residues are generally not cleaned. Complete removal would require solvent washing, and is almost never required. RMA 508 is compatible with all common alloy powders, and can be formulated into dispensing or printing grade rheologies. RMA 508 is an excellent all around paste when a non-yellowing RMA is required.

#### **Uses**

WSOA 906 pastes are excellent for bonding leads to components, bonding tin, copper, silver and plated substrates. It is ideal for use in high temperature can soldering, as the non-yellowing residue remains clear, even with metal powders melting above 450°F (232°C). Paste formulations can range from 200Kcps viscosity to 1,100Kcps. This means that RMA 508 pastes can be used for roller coating, dispensing and stenciling. As with all Fry Powerbond series pastes, it can be formulated into a variety of lead-free formulations as well.

#### **Reflow Profile**

RMA 508 based formulations can be successfully reflowed with a standard ramp, soak and reflow profile. An initial ramp-up of 60° to 180°C per minute is recommended until a temperature of 160°C is reached. A soak temperature of 150° to 165° for 1 to 3 minutes is usually acceptable, followed by a rapid ramp-up to a temperature at least 15°C above the melting point of the alloy. RMA 508 was designed to withstand open flame reflow systems as well. Because of the infinite combination of solder alloys, and component thermal inertia, there is no one universal profile. Fry always recommends starting with a profile already developed for your process. It's usually the parts being soldered, not the paste, that determine the best reflow profile. Our technical staff is always available to help optimize your reflow profile.

#### **Trouble Shooting Guide:**

##### **Problem**

Solder Balling

Cold Solder Joints

No solder reflow

Poor Wetting

##### **Solution**

Reduce the ramp-rate of the heat source

Reduce the soak time prior to reflow

Increase the peak temperature

Try a more active WSOA flux (OA 800), or an IA type

## Cleaning

As with any RMA paste, post reflow cleaning is usually not recommended. For residual-free applications, a WSOA type flux, with water washing is suggested. This is more desirable than cleaning an RMA residual with a chlorinated solvent.

## Benefits:

1. Use with all standard Powerbond Alloys from 136°F to 570°F
2. Excellent wetting on tin, copper, silver and plated substrates
3. SIR readings of  $8 \times 10^{11}$  are easily obtained
4. Readily used with standard, existing reflow profiles
5. Many lead-free formulas available
6. Produces a clear, colorless, non-tacky residue

## Physical Data

Property	Typical Values
Tack Time	4 hours plus
Viscosity Range	200 Kcps to 1,100Kcps
SIR Post Cleaning (IPC-SP-819)	N/A
SIR Post Cleaning (Bellcore)	N/A
Residual Appearance	Clear, colorless, non-tacky

## Packaging

Powerbond solder pastes are available in syringes, cartridges, jars and 25 pound pails.

## Safety

Consult the Material Safety Data Sheet for other pertinent information before using this product.

### Important Notice to Purchaser

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