ALPHA® RELIACORE 15

TYPE RMA PER QPL571-28-89, PASSES IPC-TM-650 2.6.3.3

DESCRIPTION

ALPHA RELIACORE 15 is the most effective RMA rosin cored wire solder yet developed for hand soldering. The unique and powerful activation system of this core solder makes the flux exceptionally fast wetting when compared with other RMA core solders. Yet, **ALPHA RELIACORE 15** meets all of the requirements of Federal Specification QQS-571E for Type RMA flux core solder.

FEATURES & BENEFITS

Developed to meet the requirements of QQS-571E, **ALPHA RELIACORE 15** is suitable for uses in any electronic hand soldering application requiring compliance with Military Specifications. It is also suitable for those ommercial electronic operations that are modeled after Military Specifications. Some of these include: computer, aerospace, telecommunications, automotive, business machines, and entertainment industry applications.

The activator system in **ALPHA RELIACORE 15** enables the flux to penetrate moderately tarnished surfaces among the following metals:

Silver	Solder (Paste)	Solder (Hot Dip)
Cadmium (Plate)	Copper	Gold
Tin (Hot Plate)	Tin (Plate)	

PRODUCT INFORMATION

Standard	Alloy Designation	Melting or Solidus / Liquidus Temp °C	Flux Amount
Proprietary	SACX Plus® 0307	217 - 228	2.2% & 3.3%
J-STD-006B	SAC305 (Sn96.5/Ag3.0/Cu0.5)	217 - 221	2.2% & 3.3%
J-STD-006B	Sn96.5/Ag3.5	221	2.2% & 3.3%
J-STD-006B	Sn63/Pb37	183	2.2% & 3.3%
J-STD-006B	Sn62/Pb36/Ag2	179	2.2% & 3.3%
J-STD-006B	Sn60/Pb40	183 – 191	2.2% & 3.3%

* **ALPHA RELIACORE 15** *may also available in other or special alloys and flux amounts on request.*

APPLICATION

A soldered joint is formed by heating the parts to be soldered to a temperature in excess of the melting point of the alloy to be used – in hand soldering this is how a soldering iron is used. By feeding the cored wire onto the parts, the flux is able to flow and remove oxidized metal, while the solder creates a thin inter-metallic bond which becomes the solder joint.

Note the following tips:

- Use a soldering iron tip size and form to suit the operation: small tips for soldering large components may prevent the formation of a joint or slow the process down.
- Select a solder wire diameter to suit both the soldering iron tip and the parts/components to be soldered.
- Soldering iron systems should provide sufficient heat to satisfy the requirements of the points above.
- A typical solder tip temperature would be between 120°C and 160°C above the liquidus temperature of the alloy. The ideal temperature to use is dependant on how thermally demanding the assembly is.

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APPLICATION

- Cored solder wires can be provided in different grades of alloy so always ensures that you have selected the right grade for the application.
- Do not overheat as this causes an increase in the depth of the inter-metallic layer, which in turn weakens the joint.

If you choose to use a liquid rework flux, ALPHA RMA615 Series Fluxes are recommended to maintain high electrical reliability.

In applications requiring cleaning, **ALPHA Reliacore 15** flux residues can also be removed in conventional solvent vapor cleaning processes and aqueous saponifier ALPHA 2110.

TECHNICAL DATA

Properties	Typical Values
Softening Point	71°C (160°F)
Rosin Grade	WW per Fed. Spec. LLL-R-626
Water Extract Resistivity	>100,000 ohm-cm, minimum per QQS-571E
Corrosiveness	Passes Copper Mirror (IPC-TM-650- 2.3.32)
Halide Content	Passes Silver Chromate Paper Test
QPL Listing Number	571-28-89
Classification:	ROL1 per IPC J-STD-004 1.1.2 per ISO 12224

SAFETY

Observe standard precautions for handling and use. Use in well ventilated areas. DO NOT SMOKE during use.

ALPHA RELIACORE 15 Cored Wire is not considered toxic. However, its use in typical soldering applications will generate a small amount of decomposition and fumes. These fumes should be adequately exhausted / vented for operator safety and comfort.

STORAGE

ALPHA Cored Solder Wires should be stored in dry conditions and within a temperature range of 10°C to 40°C. When stored under these conditions the product shelf life is indefinite. However, Alpha guarantees the product shelf life for three years from the date of manufacture when stored in dry conditions and within 10°C to 40°C.