

ALPHA[®] RF-32LC

Special Spray Flux System

DESCRIPTION

ALPHA RF-32LC is a special development for soldering in machines with an inert machine atmosphere with the goal of improving the soldering results still further and making washing-off flux residues superfluous, especially with chlorinated hydrocarbon or chlorofluorocarbon cleaning agents.

ALPHA RF-32LC is based on colophony and belongs to the flux group 2.2.3 according to DIN 29 454. Due to the low solids' contents of only 2.0 % weight, the circuit boards are practically free from residues after soldering and meet the MIL-cleanness requirements with remaining contamination of less than 3.1 µg NaCl/cm². Therefore, washing operations are superfluous, so that not only costs can be saved with this flux, but also a great advantage is achieved for environment protection. Apart from alcohol and colophony, two environment-friendly, natural substances, the flux itself is composed only of carbon acids as activators. The used carbon acids are mentioned in several literature articles as completely harmless for health. Furthermore, they are also used in the food field.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS

- **Halogen-free-:** According to DIN 8527, ALPHA RF-32LC does not cause corrosion and change in electric resistivity.
- **Residue-free:** After soldering, the circuits and components are free from residues. Therefore, the "In-circuit-test" can be carried out immediately after soldering without an additional wash procedure. Sticky residues on the soldering frame, facilities, and devices are avoided. Handling of the circuit boards will be free from problems.
- **Self-cleaning:** Due to the special characteristics of the flux, a washing process takes place in the soldering wave on the circuit board, which largely replaces the otherwise usual washing procedure. The soldering frames remain almost clean.
- **Above-average soldering characteristics:** ALPHA RF-32LC leads to essentially reduced soldering fault rates. Normally, SMD and MELF placements will be soldered free from faults.
- **Low environment impact:** By relinquishing the so far used wash techniques, the emission of chlorinated hydrocarbon or chlorofluorocarbon cleaning agents will be avoided. Furthermore, because of the low solids content in the flux and the use of environmentally friendly substances, an environment-protecting effect is achieved.
- **Cost-effectiveness:** Further significant benefits can be gained for investment and operating costs by relinquishing washing techniques.

APPLICATION GUIDELINES

ALPHA RF-32LC has especially been developed for spray application of flux on printed circuits and electronic components. The low surface tension and good capillary characteristics lead to a thin, even wetting. Pre-drying temperature, conveyor speed, and solder bath temperature should be agreed with the machine manufacturer. **ALPHA RF-32LC** can be used for soldering the following metals:

Copper	Lead-tin-cladding	Hot-tinned metals
Brass	Lead	Tin
Bronze	Silver	Tin/Zinc
Cadmium	Nickel	Tin-cladding

TECHNICAL DATA

Item	Typical Values
Solids Content, wt/wt	2.0%
Specific Gravity @25 °C	0.795 ± 0.003
Acid Value, mg KOH/g	10.5 ± 1.0
Halogen Content	None
Corroding Effect	None, according to DIN 8527
Ignition point	12 °C
Shelf life	12 Months

AVAILABILITY

ALPHA RF-32LC is available in 25 Liters container and 200 Liters drums.

APPLICATION GUIDELINES

ALPHA RF-32LC will be supplied in a state ready for use. Additional thinning, with thinner ALPHA RF-32LC 2.0 V, can be carried out after checking the soldering-friendliness of the material to be soldered. However, this should be agreed with the machine manufacturer.

Re-adjusting the density during operation is not necessary, because the product is applied in a special procedure in which evaporation losses do not occur.

RECYCLING SERVICES

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or [link here](#).



SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at MacdermidAlpha.com/assembly-solutions/knowledge-base.**

CONTACT INFORMATION

To confirm this document is the most recent version, please contact
Assembly@MacDermidAlpha.com
www.macdermidalpha.com

<p>North America 109 Corporate Blvd. South Plainfield, NJ 07080, USA 1.800.367.5460</p>	<p>Europe Unit 2, Genesis Business Park Albert Drive Woking, Surrey, GU21 5RW, UK 44.01483.758400</p>	<p>Asia 8/F., Paul Y. Centre 51 Hung To Road Kwun Tong, Kowloon, Hong Kong 852.3190.3100</p>
---	--	---

Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE . Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

DISCLAIMER: All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. No statement or recommendation shall constitute a representation unless set forth in an agreement signed by officers of seller and manufacturer. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY IS MADE. The following warranty is made in lieu of such warranties and all other warranties, express, implied, or statutory. Products are warranted to be free from defects in material and workmanship at the time sold. The sole obligation of seller and manufacturer under this warranty shall be to replace any noncompliant product at the time sold. Under no circumstances shall manufacturer or seller be liable for any loss, damage or expense, direct, indirect, incidental or consequential, arising out of the inability to use the product. Notwithstanding the foregoing, if products are supplied in response to a customer request that specifies operating parameters beyond those stated above, or if products are used under conditions exceeding said parameters, the customer by acceptance or use thereof assumes all risk of product failure and of all direct, indirect, incidental and consequential damages that may result from use of the products under such conditions, and agrees to exonerate, indemnify, defend and hold harmless MacDermid, Incorporated and its affiliates therefrom. No suggestion for product use nor anything contained herein shall be construed as a recommendation to use any product in a manner that infringes any patent or other intellectual property rights, and seller and manufacturer assume no responsibility or liability for any such infringement.

© 2019 MacDermid, Inc. and its group of companies. All rights reserved. "(R)" and "TM" are registered trademarks or trademarks of MacDermid, Inc. and its group of companies in the United States and/or other countries.