

ALPHA[®] RF 32 LCF-M

Special Foam and Spray Flux (Type 2.1.3 according DIN EN 29 454)

DESCRIPTION

ALPHA RF 32 LCF-M flux is developed specifically for machine soldering with normal and inert gas atmosphere based on adipic acid.

The flux is halide-free and has been developed with the aim to further improve soldering results. The flux practically does not leave any residue. Cleaning after soldering is not necessary.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS

- High surface resistance values caused by small solid matter amounts, MIL cleanness is reached
- Visually clean, shiny surfaces
- Excellent soldering results at SMD technology
- Soldered assemblies could be proved without cleaning at circuit test systems
- No cleaning required

APPLICATION GUIDELINES

ALPHA RF 32 LCF-M flux has been developed for use in open systems and can also be used in nitrogen-soldering systems. ALPHA RF 32 LCF-M can be applied with all conventional systems of surface mounting techniques.

Density control or control of the acid number is not necessary when using flux systems. For good soldering results and residue free surfaces, temperatures of 100 to 140 °C should be reached at the bottom of the circuit board.

TECHNICAL DATA

Item	Typical Values	Item	Typical Values
Appearance	Clear, colorless solution	Flash Point (T.C.C.)	12 °C
Solids Matter	Synthetic	Recommended Thinner	Not Applicable
Density @ 20 °C, g/cm ³	0.795 ± 0.005	Shelf Life (from Date of Mfg.)	540 Days
Acid Number (mg KOH/g)	14.5 to 15.7	DIN EN 29 454 Designation	Type 2.1.3
Residue Amount, % by weight	2.0	Packaging Size	25 Liter

CORROSION & ELECTRICAL TESTING
Corrosion Test

Test		Requirement	Results
IPC J-STD-004	Copper Mirror Test	No complete removal of copper	PASS
	Copper Corrosion Test	No evidence of corrosion	PASS

IPC J-STD-004 Surface Insulation Resistance

Test	Conditions	Requirements	Results
"Comb-Down" Un-cleaned	85 °C/85% RH, 7 days	> 1.0 x 10 ⁸ Ω	2.3 x 10 ¹⁰ Ω
"Comb-Up" Un-cleaned	85 °C/85% RH, 7 days	> 1.0 x 10 ⁸ Ω	1.1 x 10 ¹⁰ Ω
Control Boards	85 °C/85% RH, 7 days	> 1.0 x 10 ⁹ Ω	2.4 x 10 ¹⁰ Ω
Test Condition (per J-STD-004): -48V; Modified IPC B-24 board			

BELLCORE ELECTROCHEMICAL MIGRATION RESISTANCE

Test	SIR (Initial)	SIR (Final)	Requirement	Result	Visual Result
"Comb-Up" Un-cleaned	$3.2 \times 10^9 \Omega$	$1.1 \times 10^{11} \Omega$	SIR (Initial)/SIR (Final) < 10	PASS	PASS
"Comb-Down" Un-cleaned	$5.2 \times 10^9 \Omega$	$1.0 \times 10^{11} \Omega$	SIR (Initial)/SIR (Final) < 10	PASS	PASS
Control	$6.4 \times 10^9 \Omega$	$3.6 \times 10^{10} \Omega$	SIR (Initial)/SIR (Final) < 10	PASS	PASS
Test Condition: Belcore GR78-CORE Issue 1 September 1997 (500 hrs at 65 °C / 85% 10V; IPC B-25 Pattern B)					

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
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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

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