

ALPHA SM-32D SM HF FLUX

DESCRIPTION

ALPHA SM-32D SM HF flux is a halide-free, halogen-free, rosin formulation combining high soldering efficiency and low solids content with insulating, non-corrosive, post-soldering residues.

The extremely low level of flux residues on soldered **ALPHA SM-32D SM HF** assemblies and the non-tacky nature makes **ALPHA SM-32D SM HF** ideal for pin-testing applications without post-soldering cleaning.

ALPHA SM-32D SM HF is recommended for bare copper and SMOBC boards with a rosin-type protective coating. Some important features of **ALPHA SM-32D SM HF** flux include:

- High surface insulation resistance (SIR)
- Passes copper mirror and DIN 8527 corrosion tests
- Meets DIN 8511, Type F-SW 32

This flux can be applied by foam, wave, or spray techniques.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

APPLICATION GUIDELINES

ALPHA SM-32D SM HF flux is designed for wave soldering of adhesive-dot held, surface mountable components such as leadless chip capacitors and resistors, SOIC, etc. The flux can be used very effectively with the latest dual-wave equipment.

In addition, soldered assemblies, fixtures, and equipment will be virtually residue-free, reducing maintenance and clean-up.

To achieve an even, fine-bubble foam, the flux level in the foam station should be kept as high as possible, and a ceramic foam stone with fine pores should be used.

Hot fixtures should not be used in the flux, as they cause foam deterioration and increase evaporation of flux components.

A topside preheat temperature of 95 to 110 °C is recommended for ALPHA SM-32D SM HF.

TECHNICAL DATA

Category (Physical Properties)	Results
Appearance	Clear, Yellow Liquids
Specific Gravity @ 77 °F (25 °C)	0.797 ± 0.002
Percent Solids	5.4
Halide Content	None
Halogen Content	None
Copper Corrosion Test IPC J-STD-004; TM-650 2.6.15	Passes, L Type
Copper Mirror Test IPC J-STD-004; TM-650 2.3.32	Passes, L Type
Corrosion Test DIN 8527	Passes
Surface Insulation Resistance, ohm IPC-TM-650 2.6.3.3	Passes Comb Down – 3.2×10^9 Comb Up – 6.4×10^9
Water Extract Resistivity ohm-cm	30,000
Flash Point (T.C.C)	53 °F (12 °C)

THINNING

Due to the low solids content of ALPHA SM-32D SM HF, it is important that a measurement of specific gravity be done very accurately to determine when to add ALPHA 425 Thinner. The use of a hydrometer that reads accurately to 0.001 specific gravity units is recommended. Flux temperature at the time of making a specific gravity measurement should be determined with an accurate glass thermometer. Then, a temperature correction must be made to the observed specific gravity as follows:

$0.0005 \times (t-77)$ must be added to the observed specific gravity when flux temperature t is above 77 °F; $0.0005 \times (77-t)$ must be subtracted from the observed specific gravity when flux temperature is below 77 °F. Evaporation cooling of the flux during foam application makes the latter cases more likely.

For optimum performance, the specific gravity of ALPHA SM-32D SM HF should be maintained between 0.795 and 0.803, measured at 77 °F. Practical experience has shown 1:1 flux-thinner additions to be generally satisfactory for correcting for drag-out and evaporation losses.

AVAILABILITY

ALPHA SM-32D SM HF flux is available in 1, 5, and 55 gallon containers.

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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