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TECHNICAL BULLETIN

ALPHA® 3355-HB

Water Soluble Flux

DESCRIPTION

ALPHA 3355-HB water soluble flux is a variation of the **ALPHA 3355-11** formulation, with an added surfactant for broadening the preheat temperature range and eliminating salting out at the flux application. **ALPHA 3355-HB** delivers exceptional solder wetting for a variety of metallic surfaces and unsurpassed water solubility characteristics.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

APPLICATION GUIDELINES

Primarily for foam application and conveyorized soldering, ALPHA 3355-HB can be spray, dip, wave or brush applied. Flux applicators and reservoir should be plastic or titanium only. Flux coated surfaces should be preheated to provide optimum wicking and solder joint formation. The degree of preheat is dependent on many variables, such as conveyor speed, type of components and substrates. Entering the solder wave with a topside temperature in the 82-110 °C (180 to 230 °F) range is typical.

Control: The foam applicators should be supplied with compressed air, free of oil and water. Maintain flux fluid level sufficiently above the aerator stone to produce adequate foam height. Adjust air pressure to produce the optimum height with foam consisting of small uniform bubbles. During use, the specific gravity of the flux should be checked periodically. This can be accomplished with a hydrometer. Evaporated solvent should be replenished by the addition of flux thinner.

In time, debris and contaminants will accumulate in the flux. For consistent soldering performance, replace flux periodically. After dumping used flux, the reservoir and aerator stone should be thoroughly cleaned with flux thinner. Refill the reservoir with fresh flux and allow a few minutes for foam to stabilize before resuming solder operation.

Residue Removal: After soldering, the water soluble residues must be removed. Thorough cleaning can be accomplished with 50 to 70 °C (120 to 170 °F) water. For critical cleanliness requirements, final rinsing with DI water may be required.

Removal can be accomplished in multi-zone conveyorized in-line spray systems, automated batch spray systems (dishwashers) or multi-stage batch tank cleaning. Multiple zone in-line systems equipped with quality tap or conditioned water, an effective air knife and drying

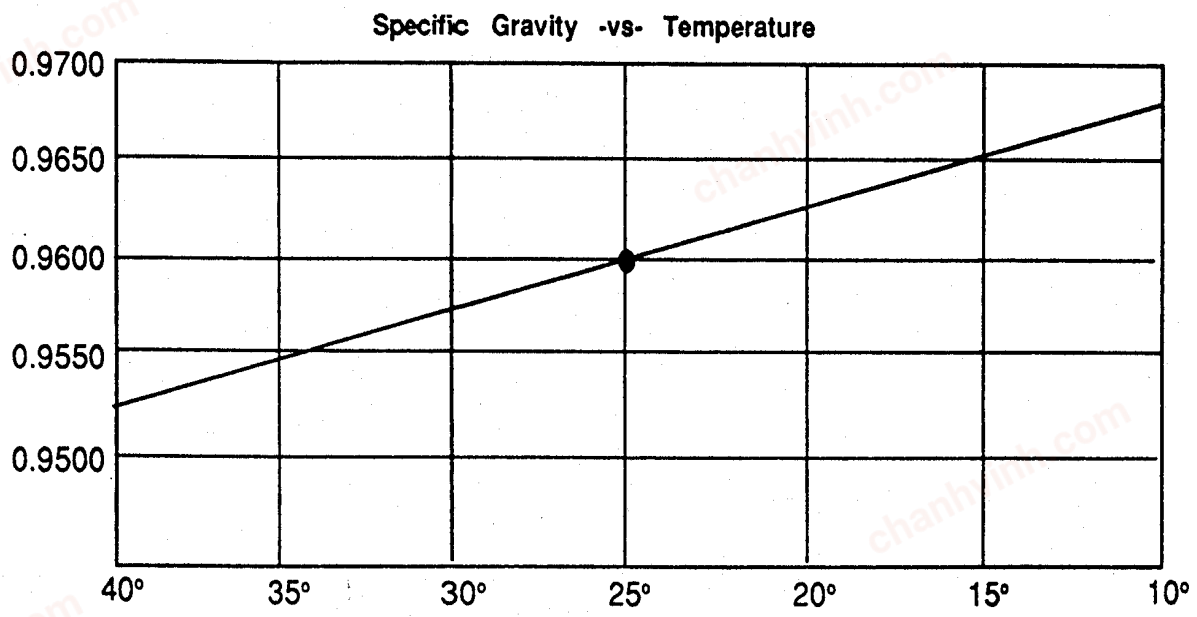
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capacity can produce MIL-P-28809 ionic cleanliness levels. Incorporating a saponifier or neutralizer will assist the removal of flux residues, aqueous spot masks and other contaminants.

To avoid the risk of corrosion, residues should be thoroughly cleaned, preferably, immediately or not beyond four hours after processing.

TECHNICAL DATA

Item	Typical Values	Item	Typical Values
Appearance	Clear, colorless liquid	Flash Point (T.C.C.)	71 °F
Solids Content, wt/wt	30%	Recommended Thinner	3355 Additive
Specific Gravity @ 25 °C (77 °F)	0.960 ± 0.005	Shelf Life	540 days
Acid Number (mg KOH/g)	40 ± 4	IPC J-STD-004 Designation	ORH1
% Chloride	2.0 ± 0.2	Container Size	1 Gal,5 Gal,55 Gal



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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

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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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