

152HF WATER SOLUBLE FLUX

GENERAL DESCRIPTION

152HF is a halide free, water soluble, liquid flux formulated for producing defect free assemblies in lead free wave soldering processes employing water cleaning. It provides excellent ionic cleanliness after water cleaning and has been formulated to reduce foaming in the wash process. 152HF is also suitable for surface mount assembly soldering operations.

FLUX CONTROL

- The amount of flux to be applied during **foaming applications** should be between 800 and 1300 micrograms per square inch of circuit. The amount of flux to be applied during **spray application** should be between 475 and 850 micrograms per square inch of circuit.

CONVEYOR SPEED

- The ideal conveyor speed is dependent on the type of board and preheat requirements. A speed between 3.5 to 6.5 feet will suit most applications

STORAGE AND HANDLING

Use in well-ventilated area and observe standard precautions for handling and use. Refer to the Material Safety Data Sheet for further information.

PROCESS CONSIDERATIONS

- PREHEAT**

A topside temperature between 80° - 110° Celsius is recommended.

A bottom side temperature should be 25° Celsius higher than the topside.

- SOLDER TEMPERATURE**

A solder temperature of 250° - 265° Celsius should be maintained for SN100C Lead Free Solder.

A solder temperature of 240° - 255° Celsius should be maintained for Sn63/Pb37 Leaded Solder.

- THINNING**

FT-100 Flux Thinner should be used to maintain the density of 152HF between 0.92 – 0.94 g/cc at 70 deg. F.

PHYSICAL PROPERTIES

Physical Properties	Values
Density (g/mL)	0.92 – 0.94
PH (100%)	3.5 – 4.0
Acid Number (mgKOH/gm)	90 - 110
Color	Clear to light amber
Halide Content	0.00%
Copper Mirror	Moderate Activity
Silver Chromate	No halides
Solder Wetting	Positive, Good spread
J-STD-004 Class	ORM0

STANDARD PRODUCT AVAILABILITY

UNIT OF MEASURE
1 GALLON JUG
5 GALLON PAIL
55 GALLON DRUM

SAFETY

152HF is a low smoking, foam flux. Using moderate airflow rates, its fine-bubble foam head is fast breaking and recovers rapidly for effective coverage at high production speeds. This active flux will produce bright shiny solder connections. The residues wash off easily to very low levels of ionic contamination. Water washing can be done without the use of rinse aids with little or no foaming. Local regulations may require pretreatment to raise the pH to remove dissolved lead from water effluent.

CLEANING

All ingredients in 152HF are completely soluble in water. No soap or saponifiers are required to remove residues. It is recommended that the temperature of the water wash is maintained above 100°F to ensure efficient removal. A final rinse with de-ionized water will ensure maximum cleanliness.

MATERIAL SAFETY DATA SHEETS

Material Safety Data Sheets (MSDS) are available online at www.fctassembly.com