



**EIE Enterprise (M) Sdn. Bhd.** (944691-T)

## **HI-GRADE 1075-EXR-44 VOC-FREE FLUX**

### **DESCRIPTION**

HI-GRADE 1075-EXR-44 is a non-halide, synthetic resin flux specifically developed for lead-free wave soldering of surface mount, mixed technology and through-hole electronic assemblies.

HI-GRADE 1075-EXR-44 is a water based, non-flammable formulation eliminating special storage requirements, and reducing VOC emissions dramatically. The 1075-EXR-44 is formulated for use with lead-free alloys to reduce solder balls and produce better solderability on difficult to solder assemblies.

### **PROCESS RECOMMENDATIONS**

HI-GRADE 1075-EXR-44 can be applied by spray or wave. Topside board temperatures for most circuit board assemblies are greater than 220° F (105° C) depending on equipment, board size, board complexity, and conveyor speed (typically 4-6"/min). Preheat should be adjusted to ensure complete water removal before contact with the solder wave. Convection preheat is strongly recommended for optimum results.

Because the HI-GRADE 1075-EXR-44 is water based, it does not require frequent acid value monitoring. If thinning is required, the addition of deionized water is all that is necessary.

The HI-GRADE 1075-EXR-44 may freeze if exposed to temperatures below 32° F. If the flux becomes frozen, bring to room temperature until thawed and agitate. The material is not affected by freezing.

### **BENEFITS**

- VOC-FREE FORMULATION
- EXCELLENT SURFACE WETTING
- ELIMINATES CLEANING
- INCREASED ACTIVITY
- REDUCES SOLDER BALLS
- CONFORMS TO TELCORDIA GR-78 SPECIFICATION
- USE WITH LEAD-FREE ALLOYS

## **PHYSICAL PROPERTIES**

Color	Clear
Specific Gravity	
@77° F (25° C)	1.019
@60° F (15.5° C)	1.019
Acid Value	40.0
Solids Content	5.0
Flash Point	None
Silver Chromate	
Paper Test	Pass
Copper Mirror Test *	Pass
Freeze/Thaw Test	Pass

### **\* Modified IPC/Bellcore method :**

Passes the copper mirror test when the same flux is formulated with isopropanol or the solids from the water based formulation are reconstituted with isopropanol.

## **TELCORDIA SURFACE INSULATION RESISTANCE TEST**

Test Pattern	Boards	Initial Reading*	Final Reading*
IPC-B-25A test pattern	Control	8.83 X 10	6.78 X 10
0.0125" wide lines	Pattern-up	3.90 X 10	6.39 X 10
0.0125" spacing	Pattern-down	1.58 X 10	2.97 X 10

## **TELCORDIA ELECTROMIGRATION RESISTANCE TEST**

Test Pattern	Boards	Initial Reading*	Final Reading*
IPC-B-25A test pattern	Control	6.12 X 10	3.01 X 10
0.0125" wide lines	Pattern-up	2.33 X 10	9.82 X 10
0.0125" wide spacing	Pattern-down	1.99 X 10	2.54 X 10

\* ALL READINGS ARE EXPRESSED IN OHMS

## **SAFETY**

HI-GRADE 1075-EXR-44 is non-flammable material. Standard precautions should be observed when handling this material.

## **PACKAGING**

25 /LTR