



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

HI-GRADE #3590-T NO RESIDUE FLUX

Description

HI-GRADE #3590-T NO-RESIDUE FLUX is a specially formulated low solids, non-halide, rosin/resin-free flux designed for soldering where the solder cleaning operations are to be eliminated. This flux contains very effective flux activators, which result in excellent solderability and reduced defects.

Benefits

- Meets Belcore Specification TR-NWT-000078
- Eliminates the need for cleaning
- Excellent wetting and reduced defects
- Compatible with conformal coatings without cleaning

Applications And Uses

The HI-GRADE #3590-T can be applied by foam, wave, spray or by dipping. The following suggestions will help improve the foaming characteristics:

- Narrow flux chimney
- Use dual stones
- Add brushes inside flux chimney
- Maintain proper flux level
- Clean foam fluxing stone regularly
- Maintain specific gravity or acid value with #16-3000 Thinner

The HI-GRADE #3590-T can be used successfully in all types of spray fluxers. It can be used very effectively in single or dual wave soldering configurations. Assemblies with surface-mount, through-hole and mixed technology boards can all be soldered successfully.

The HI-GRADE #3590-T can be used successfully with all solderability preservative coatings, including hot air levelled, roll-tinned, infrared fused, rosin based lacquers and organic solderability protective coatings.

Physical Properties

<u>Test</u>	<u>3590-T</u>
Colour	Clear
Specific Gravity @ 77°F (25° C)	0.801
@ 60°F (15.5° C)	0.808
Solids Content	2.0
Acid Value	16.0
Pounds per Gallon	6.66
Halide Content	None
Fluoride Test	Pass
Silver Chromate Paper	Pass
Copper Mirror	Pass
Corrosion	Pass
Flash Point	54°F TCC

BELLCORE SURFACE INSULATION RESISTANCE TEST

<u>Test Pattern</u>	<u>Boards</u>	<u>Initial Reading *</u>	<u>Final Reading *</u>
Standard Bellcore			
0.025" wide lines	Control	7.06×10^{13}	8.11×10^{13}
0.050" spacing	Pattern-up	8.20×10^{10}	1.14×10^{12}
	Pattern-down	6.64×10^{12}	1.32×10^{14}

Belcore Electromigration Resistance Test

<u>Test Pattern</u>	<u>Boards</u>	<u>Initial Reading *</u>	<u>Final Reading*</u>
IPC B25 test pattern			
0.0125" wide lines	Control	1.33×10^{10}	1.42×10^{10}
0.0125" spacing	Pattern-up	8.06×10^9	1.23×10^{10}
	Pattern-down	2.12×10^9	4.54×10^9

IPC Surface Insulation Resistance Test

<u>Test Pattern</u>	<u>Boards</u>	<u>24Hours*</u>	<u>96Hours*</u>	<u>168Hours*</u>
IPC B25A				
0.0157" wide lines	Control	1.81×10^{10}	9.96×10^9	7.55×10^9
0.0197" spacing	Pattern-up	1.72×10^{10}	1.23×10^{10}	6.83×10^9
	Pattern-down	9.86×10^9	4.54×10^9	4.64×10^9

- All Readings Are Expressed In OHMS

SAFETY

All fluxes with low flash points should be handled with caution. Store in a dry, well ventilated area away from sparks, flames, direct heat. Consult material safety data sheet for full details.

Packaging

25 litres or 6 gallons per plastic container

209 litres or 55 gallons drum

The information contained herein is based on technical data which we believe to be reliable and is intended for use persons having technical skill, at their own discretion and risk. Users of our products should make their own tests to determine the suitability of each such product for their particular purposes. Since conditions of use are outside of Hi-Grade's control, we can assume no liability for results obtained or damages incurred through the application of the data presented, nor can we assure customers of freedom from patent infringement in the use of any formula or process described herein. " No-residue flux " implies no visible residues after soldering.