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New Breakthrough in Double-Sided Reflow Part Retention: PLACE-N-BOND™ Underfilm

PLACE-N-BOND™ underfilm passed testing and was implemented in volume production to aid in component retention during the second pass reflow of printed circuit assemblies. This successful testing and implementation occurred in various applications with components such as capacitors, inductors, transformers, connectors, and larger ICs.

Softened bottom-side solder joints can be insufficient for retaining parts. Dispensed bonding done before second side reflow requires additional equipment or secondary processes. Packaged in tape and reel, the underfilm gets picked and placed along with the other components prior to reflow. PLACE-N-BOND™ reels are mounted on SMT feeders, and implementation was easily accomplished without dispensers or secondary processes.

Responding to the growing demand for PLACE-N-BOND™ in component retention, Alltemated Inc. invested in new in-house testing capabilities to support application development. With the addition of a reflow oven, Alltemated simulates an application's double-sided reflow to validate retention prior to recommending the correct underfilm material, size, and thickness.

PLACE-N-BOND™ continues to be utilized in numerous devices worldwide. This innovative solution not only helps components hold on during second reflow but also adds solder joint strain relief and mechanical strength to the component after assembly. Originally developed for BGA solder ball/joint reliability, the number of applications utilizing underfilm in double-sided reflow part retention has increased 4X over the past year.

For more information on double-sided reflow retention and solder joint reliability of printed circuit assemblies: https://www.alltemated.com/place-n-bond-underfilms/