

MacDermid Alpha Releases Single Step Copper Through Hole Filling Process for Advanced PCBs: MacuSpec THF 100

(Waterbury, CT USA) – Mar 31st, 2020 – MacDermid Alpha Electronics Solutions, a global leader in specialty materials for electronics, announces the release of MacuSpec THF 100, a single step copper through hole filling process that enables improved thermal and structural designs for IC substrates. MacuSpec THF 100 is a copper electroplating process that plates a solid copper filled through hole in core PCB layers. The copper structure provided by the process has higher thermal conductivity than paste without the thermal expansion commonly encountered with other materials. The process can fill through holes in a fraction of the time that would be required by direct current plating. A combination of high-performance chemistry and equipment allow the system to fill holes with minimal dimple and little to no need for surface planarization, simplifying the buildup of subsequent layers.

With technology advancement comes challenges for advanced PCB fabrication. Higher processing power, more integrated circuit packages per device, and ever-increasing miniaturization has driven designers to seek new ways to improve structural integrity and thermal management in their products. MacuSpec THF 100 provides an attractive solution to these problems, allowing through holes in a variety of substrates to be filled with void free copper structures that have excellent physical properties and performance under the thermal stresses of assembly and device operation. When compared to alternative two-step processes that introduce an additional copper interface, the single electroplating step of the MacuSpec THF 100 creates a continuous copper structure inside the hole from top to bottom. In total, this process provides a new tool to the electronics industry for increasing circuit density and device functionality.

For more information on MacuSpec THF 100, please visit [MacDermidAlpha.com](https://www.macdermidalpha.com)

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