

## 3M Electronic Solutions Division Introduces Halogen-Free Embedded Capacitance Material

Design engineers in the electronics industry who are seeking ways to improve power integrity and reduce electromagnetic interference (EMI) while meeting halogen-free requirements now have a new solution to meet their needs. The 3M Electronic Solutions Division now offers halogen-free\* versions of its Embedded Capacitance Material (ECM).

3M's ECM is a thin, high-performance capacitor laminate, which can be embedded into printed circuit boards (PCBs) and computer chip packages to reduce impedance, power bus noise, PCB EMI and discrete capacitor count. It allows design engineers to differentiate their products through dramatically improved performance and reduced size. The material has been used successfully in applications for a variety of industries, including telecommunications, computer hardware, test and measurement, military/aerospace, medical and consumer electronics.

3M developed new ECM versions that exclude the use of halogen compounds without sacrificing performance in response to industry concerns over the environmental effects of halogens. Halogen compounds, commonly used in plastics, can potentially release corrosive gases when burned.

Halogen-free ECM from 3M is compatible with standard rigid and flexible printed circuit board processing, including laser drilling. Fabricators and OEMs worldwide may use 3M's ECM without purchasing a license from 3M. The material is RoHS compliant\*\*.

\*Halogen-free is defined as both (1) no halogen compounds are intentionally added to the product or used in the manufacturing process for the product, and (2) any impurities present are less than 900 ppm bromine, less than 900 ppm chlorine, and/or less than 1500 ppm total bromine and chlorine.

\*\*RoHS compliant means that the product or part does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

### About 3M Electronic Solutions Division

The 3M Electronic Solutions Division offers innovative solutions to the global electronics market, such as static control products; copper interconnect systems; cables and cable assemblies; carrier and cover tapes and trays; flexible circuits; embedded capacitor materials; and Textool brand test and burn-in sockets. For more information on these solutions available from the 3M Electronic Solutions Division, visit [www.3Mcapacitance.com](http://www.3Mcapacitance.com).

More information about 3M Company available [online](#).

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