

ESM200

Providing a Competitive Edge to Manufacturers of Microwave Components

Due to its unique ability to deposit extremely conformal silver-coatings of any desired thickness, the ESM 200 sets new standards and paves the way for new design possibilities for companies developing and producing microwave components.



Why ESM200?

ESM200 is an autocatalytic electroless silver-plating process. The autocatalytic nature of the process is a world unique feature, which is one of the most prevalent reasons why ESM200 has superior performance optimized for the microwave industry.

Conformal Coatings

The electroless deposition enables an extremely conformal silver coating. As opposed to electroplating, the complexity of the geometry to be plated is not a concern with ESM200. The problem with edge effects is completely eliminated if plating with ESM200.

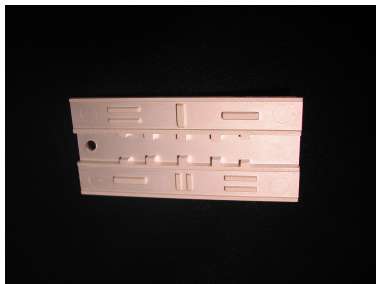


Figure 1. Detail of an injection moulded microwave filter plated with ESM – 200 for elimination of edge effects and superior electrical performance.

Unlimited Film Thickness

Silver films thicker than 0.2µm has previously been impossible to deposit with an electroless process. With ESM200 the silver coating can be engineered to any desired thickness – a crucial advantage for microwave applications.

Conductivity

The ESM200 silver films are extremely dense. The conductivity of the deposited silver film is therefore very close to the theoretical value of pure silver. This enables design and production of microwave components with excellent electrical performance.

Effective Protection of Copper-oxidation

Since the ESM 200 deposits very dense silver layers, it effectively blocks any oxidation of the underlying copper, even at lower film thicknesses. This enables a reduction in silver metal consumption compared to galvanic plating techniques. The result is a cost effective plating process with improved performance on microwave components.



Specializing in high performing plating processes, Polymer Kompositer AB offers several unique technologies.

Apart from ESM-200, our processes include two other ESM processes, developed for solar cells and printed wire boards (PWB's). In addition, we have extensive experience of plating of plastics and composite materials, as well as manufacturing of microwave components. For more information you are welcome to visit our website www.polykomp.com or contact us by phone or mail.