



Case Study

New Polymer Composite

New product generates \$2 million in first year sales

Client Situation:

Commercially available buried capacitance laminates had an unacceptable level of electrical failures after initial processing. The reliability problem increased scrap costs since the electrical testing occurred after an expensive manufacturing process. The laminate thickness variation caused unwanted variation in the electrical properties.

Client Problem:

Improper manufacturing processing caused voids in the laminate leading to electrical failures after processing and testing. Voids caused premature failures during accelerated temperature and humidity bias testing. Laminates fabricated using the standard glass cloth were difficult to make void-free.

InnoCentrix Solution:

Worked with the licensing entity to develop a project plan for a rigorous three-phase qualification plan. With clear performance goals, the team made extensive use of six sigma tools to design the manufacturing process. The product contained a new glass cloth style that significantly improved the electrical test performance and enhanced the registration capability. The resin system was designed to have increased thermal properties and custom modified to ensure very uniform thickness across the laminate.

Client Benefit:

The improved buried capacitance laminate exhibited an order of magnitude less electrical failures, showed improved reliability during temperature/humidity/bias accelerated aging, and reduced the customer scrap due to mis-registration. The manufacturing process had a 5 sigma Cpk for thickness capability. The first year revenues were approximately \$2 million.

Testimonials

Associate Research Director, Fortune 100 Company –

"InnoCentrix has the ability to align business leaders, sales and marketing, and technologists to define a new product opportunity, develop a scientific approach, conceptualize, and lead the development and commercialization activities. In my 25 years of industrial research management, I encountered few who could do this as well as InnoCentrix."

Vice President of Technology, Fortune 100 Company

"I selected InnoCentrix because they have a strong focus on the commercialization process and the requirements to drive a research concept to a profitable business. This unique skill provides them with the leadership and courage to identify the key strategies for a business to grow and prosper."

Director of Marketing, Fortune 100 Company –

"InnoCentrix provided us with valuable insight into a high growth emerging market opportunity in electronic materials. They outlined the technical requirements to successfully enter the market and offered a detailed description of the material modifications and testing required. Their unique combination of technical and business expertise was extremely valuable to our team."