

isola

The Base for Innovation

Overview

Isola is a leading global material sciences company that designs, develops, manufactures and markets copper-clad laminates and dielectric prepregs used to fabricate advanced multilayer printed circuit boards (PCBs). PCBs provide the physical platform for the semiconductors, passive components and connection circuitry that power and control virtually all modern electronics. We focus on the market for high-performance laminate materials, developing proprietary resins for laminate materials that are critical to the performance of PCBs used in advanced electronic applications. Isola's investments in technology and a Lean Six Sigma operational focus provide value to our customers through innovative and cost-effective solutions for the most demanding applications.

History

Our history dates back to the founding of Isola Werke AG in Germany in 1912. We began production of copper-clad epoxy laminates, the direct predecessors of today's PCB laminate products, in the 1960s. Through a series of acquisitions, including Polyclad Laminates, Inc. in 2006, we have successfully expanded our product portfolio and services to support the ever-changing needs of PCB fabricators around the world. Today, we are owned by private investors led by TPG and Oaktree Capital Management. We remain committed to developing new leading-edge products and continually invest in operational and quality improvements in all facets of our business.

Markets

Our high-performance PCB laminate materials are used in a variety of advanced electronics, including network and communications equipment and high-end consumer electronics, as well as advanced automotive, aerospace, military and medical applications. Demand in these markets is driven by the rapid growth of bandwidth-intensive high-speed data transmission, the expansion of the internet, the emergence of cloud computing and the evolution of increasingly complex communications technology. These trends have led to an urgent need for the development of the underlying infrastructure to support this growth, including faster and more efficient semiconductor technology. In addition, increasingly pervasive environmental regulations are driving a need for lead-free compatible, high-performance laminate materials.

Corporate Fact Sheet

Isola Group

Corporate Headquarters
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At-a-Glance

- Founded in 1912
- Privately held
- Over 1800 employees worldwide
- Largest supplier of laminate materials to PCB fabricators in the United States and Europe
- Holds over 200 patents worldwide
- Research and development centered in Chandler, AZ with regional support in Asia and Europe
- Eight manufacturing facilities worldwide: Arizona, South Carolina, Germany, China (2), Singapore and Taiwan (2)
- The Company's quality systems are ISO 9001:2008, ISO 14001:2004, ISO 18001:2007, ISO 50001:2011, OHSAS 18001:2007 and ISO/TS16949 certified
- Company web site: www.isola-group.com

Corporate Executives

- Jeffrey Waters, President and Chief Executive Officer
- Ken Rizvi, Chief Financial Officer
- Mike Rafford, Vice President, General Counsel and Corporate Secretary
- Bill Mazotti, Senior Vice President of R&D Operations and Strategic Program Management
- Ed Kelley, Senior Vice President of Global Technology
- Matt LaRont, Senior Vice President of Global Operations
- Dominic Yu, Senior Vice President of Global Sales
- Brandon Pollnow, Senior Vice President of Global Marketing
- Vicky Kao, Senior Vice President of Global Human Resources

Products

High-Speed/High-Frequency

Our laminate materials support increasingly critical high-speed/high-frequency applications. Specifically, we seek to innovate improved dielectric platforms, which deliver lower dissipation factors (Df) and lower, controlled dielectric constants (Dk) for improved performance. Our PCB laminate materials support faster data transfer rates for radio frequency (RF) applications, high-end servers, storage devices, cloud computing and backplanes.

High Glass Transition Temperature (Tg), Lead-Free Compatible and High Reliability

Isola's resins, PCB laminate materials and process enhancements support lead-free compatible, high-performance applications to address increasingly pervasive environmental regulations and lead-free initiatives. We continually focus on improving dielectric properties and reliability.

Halogen-Free Platforms

Advanced halogen-free materials utilize proprietary resin formulations for improved thermal and electrical properties and conventional E-glass fabric for reinforcement. The requirements of flammability class V-0 as per UL-94 are met without addition of antimony compounds. These materials are advantageous in applications where high-speed signals are used.

Corporate Responsibility

Operating our business in a responsible and sustainable manner is important to us. As a global material sciences company, we operate across a diverse range of cultures and markets. We are committed to providing our customers with innovative and high quality products while also ensuring that our working conditions are safe, that our workers are treated with respect and dignity, and that we are environmentally responsible. We believe that aligning these principles with our business goals is critical to our success as a company.

Fundamental to these principles is the understanding that we operate in full compliance with the laws, rules and regulations in any location where we operate. However, we believe that we should go beyond simple legal compliance in order to advance social and environmental responsibility. In 2013, we became a full member of the Electronic Industry Citizenship Coalition (EICC), which promotes a common code of conduct that improves environmental and worker conditions within the information and communications technology industry.

www.isola-group.com

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Product Applications

Servers, Routers, Storage Area Networks (SAN) & Automated Test Equipment (ATE)

- High thermal reliability materials
- Lower CTE for improved thermal cycling
- Ability to pass lead-free assembly applications
- Materials with mid-, low- and very-low dielectric constant (Dk) and dissipation factor (Df) to support signal integrity needs
- Square-weave glass and spread-glass available
- Thickness control
- Standard and high resin prepregs for demanding designs

Military, Aerospace & Defense

- Advanced substrates including polyimide and no-flow prepregs
- High thermal reliability materials

RF/Microwave – Antennas, Low Noise Block (LNB) Downconverters, 5G Base Station Applications & Power Amplifiers

- Very-low Dk and Df materials
- Tightly controlled dielectric thickness
- Stable electrical properties from -40 to 125°C

Medical & Instrumentation

- High reliability materials for sensitive applications
- Mid-, low- and very low-Dk and Df products

Cellular and Consumer Electronics

- Halogen free
- Ability to meet lead-free assembly demands
- Thin dielectrics
- Low cost

Automotive

- Standard and high-Tg, high reliability products for under-hood applications
- Very low-Dk and Df materials for automotive radar and sensors at 77 GHz
- Heavy copper applications

The Isola logo is displayed in a large, bold, red, lowercase sans-serif font.