



AGY INTRODUCES S-3 HDI™ GLASS FIBER FOR HIGH PERFORMANCE PRINTED CIRCUIT BOARDS

AIKEN, SC, USA - (March 29, 2011) - AGY, a leading global producer of glass fiber yarns and high-strength glass fiber reinforcements, has introduced **S-3 HDI™** glass fiber for high performance printed circuit boards (PCBs). Designed to meet the demanding technical requirements of high-density interconnect (HDI) technology in PCBs – especially integrated circuit (IC) package substrates – **S-3 HDI** fibers enable the production of PCB laminates that have a significant reduction in the coefficient of thermal expansion (CTE) and increased dimensional stability.

“As miniaturization of electronic devices continues, and functionality of those devices increase, the need for higher performing substrates has emerged,” explained Drew Walker, Vice President Marketing and Sales at AGY. “In response to this need, AGY has introduced **S-3 HDI** glass fiber for use in very thin high performance laminates.”

Containing a patent-pending glass composition, **S-3 HDI** glass fiber was developed with specific performance criteria in mind. “As laminates become thinner and circuit density increases, PCBs become more prone to warping,” said Walker. “**S-3 HDI** glass fiber, has a tensile modulus of 82 GPa (11.9 msi), which is 17% higher than the traditional E-Glass used in PCBs, and provides improved stiffness and excellent dimensional stability.”

“In the case of IC package substrates, finer pitch circuitry and the elevated processing temperature of lead-free soldering have magnified the need for a closer match of the laminate CTE with that of the IC component,” said Walker. “**S-3 HDI** fiber addresses this need with a CTE of 3.5 ppm/°C (1.9 ppm/°F), versus 5.4 ppm/°C (3.0 ppm/°F) for traditional E-Glass, yielding laminates with CTEs in the range of 10 ppm/°C (5.6 ppm/°F) versus E-Glass laminates at 15 ppm/°C (8.33 ppm/°F), depending on the choice of resin. This improves thermal stability and reduces stress at solder joints, resulting in higher reliability.”

AGY has been a major supplier of fine yarns to the PCB sector for decades and is a recognized leader in the quality and breadth of its product line “The ability to develop new glass fiber compositions and products with performance tailored to customer needs is a fundamental core competency of AGY and the foundation of our growth strategy,” explained Walker.

For more information on AGY’s **S-3 HDI** glass fiber, please call 888-434-0945, or visit www.agy.com.

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About AGY

AGY is a leading global producer of glass fiber yarns and high-strength glass fiber reinforcements used in a variety of composites applications. The company serves a diverse range of markets including aerospace and defense, electronics, construction and industrial. Headquartered in Aiken, South Carolina USA, AGY has a European office in Lyon, France and manufacturing facilities in the U.S. in Aiken, South Carolina and Shanghai, China.