



News

InnoVoc Solutions™ Technology Enables Powder Coating for Plastics, Composites and Other Non-Metallic Substrates

Breakthrough process emits no volatile organic compounds (VOCs) or other hazardous byproducts

MONTROSE, Colo.; Feb. 16, 2012 – InnoVoc Solutions, a division of Gordon Composites, Inc. announced today the availability of breakthrough technology for powder coating plastics, composites and other non-conductive substrates. This licensed technology makes non-metallic substrates temporarily conductive using a surface treatment that emits no volatile organic compounds (VOCs) or other hazardous byproducts.

Innovoc Solutions™ technology provides:

- A hard finish that is typically tougher than conventional liquid paint and can improve the performance and durability of plastics and composites
- Low-cost processing for automated in-line coating and batch-booth quantities
- Composite parts that can be used adjacent to powder-coated metal parts, such as appliance handles and automotive parts

Kevin E. Stay, President and General Manager of Gordon Composites, said the technology used by InnoVoc Solutions makes it easy and inexpensive to powder coat non-conductive substrates.

“Before the development of this technology, powder coating non-metallic surfaces was possible but the processes had manufacturing, cost and environmental limitations that restricted their use,” explained Stay. “The InnoVoc Solutions process is easy to use, cost-competitive and contains no hazardous chemicals that will off-gas or vaporize.”

Powder coating has been used successfully on metal surfaces since the 1940s. Compared to liquid paints, powder coating is known for strong adhesion, excellent durability, potential for either textured or gloss surfaces and the absence of runs and VOCs during application. InnoVoc Solutions technology now makes these benefits practical for composites and other non-metallic substrates.

Stay also said painting regulations are becoming more and more stringent and are expected to increasingly require decorating processes that are less polluting.

“The main difference between conventional liquid paint and powder coating is that powder coating does not require a solvent to keep the binder in a liquid suspension

form,” said Stay. “Powder coating is applied electro-statically, as a free-flowing, dry powder, and is then cured under heat to allow it to flow and cure. We can use the InnoVoc process with any engineered plastic that withstands cure temperatures in the range of 250 to 400°F.”

InnoVoc Solutions technology was developed for high-performance composite limbs on modern archery bows. Composite limbs are attached to robust powder-coated aluminum risers and need to have the same appearance and durability as the riser.

“With the new technology, we are able to use the same powder coating on both the aluminum risers and the composite limbs so they appear and age the same,” said Stay.

“Archery equipment needs to withstand rough handling in outdoor use and at camps and schools,” continued Stay. “Powder-coated bow limbs perform very well and, in fact, the coating bonds so tenaciously with the composite substrate that it significantly improves the long-term fatigue performance of the limbs.”

Other successful applications include automotive parts, electrical switch plates, handles for appliances, archery components, lacrosse sticks, MDF (medium-density fiberboard) and acoustic ceiling tile. Samples of powder-coated plastic and composite applications will be shown in February at Composites 2012 (Feb. 21-23, Las Vegas), where InnoVoc Solutions is exhibiting at booth number 355.

Stay helped develop industry-changing InnoVoc Solutions technology while he was President of NoVoc Solutions, Inc. (2007–2011), in Sparta, Wis. He joined Gordon Composites in April 2011 as President and General Manager.

About InnoVoc Solutions

InnoVoc Solutions is a division of composites pioneer Gordon Composites, Inc. The business operates a full-time development center in Montrose, Colo., where it tests customer substrates to develop production-capable processes. InnoVoc Solutions has in-house development and production capacity for both fully automated in-line powder coating and batch-booth quantities. Introductory production runs are available from the facility and the business welcomes outside job shop inquiries. The technology and trademark are licensed by Gordon Composites, Inc. from InnoVoc, LLC. For more, visit www.innoVocsolutions.com.

About Gordon Composites

Founded in the 1950s and now headquartered in Montrose, Colo., Gordon Composites, Inc. is an enterprise known for high-performance composite laminates and bar stock. The company fabricates thermoset composite materials for applications such as chair springs, sailboat battens and industrial conveyors. The company is the leading supplier of composite materials to the archery industry. For more, visit www.gordoncomposites.com.

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