

Title: Automotive Biocomposites based on Nano-Fibrillated Cellulose Technology.

Topic Area: Biocomposites in Automotive or Wood-Plastic Composites - Recent Development

Presenter: Gurminder Minhas, Managing Director, Performance BioFilaments

The presentation will summarize recent activities of Performance BioFilaments toward the use of cellulose based materials to reinforce thermoplastics, providing opportunities for improved strength and lightweight components. Nano-fibrillated cellulose is produced using a proprietary process that utilizes a mechanical treatment on sustainably produced wood pulps to generate the nano cellulose. Due to the high aspect ratio, this material has shown improved performance of a wide variety of composites suitable for use in automotive applications. The presentation will highlight the use of nano-fibrillated cellulose, along with other natural fibers in reinforcing composite materials while providing light weighting opportunities. Recent work on compounding cellulosic materials with polypropylene and polyamide composites will be discussed. Comparisons to glass fiber reinforced polypropylene and polyamide will also be presented.

#### About Gurminder Minhas

Gurminder Minhas is a business and technical development specialist, with extensive experience in biofuels, biochemicals, chemical recycling, pulp and paper industries. He is well versed in new technology development in the chemical sciences space, as well as growing technologies from lab, into pilot scale then on toward commercialization. As Managing Director of Performance BioFilaments, Gurminder is responsible for developing commercial opportunities for cellulose filament (CF) products in composite and chemical applications.

Gurminder is the former Director of Technology Deployment at Lignol Innovations, a Canadian company commercializing a proprietary biomass to fuels and chemicals technology. Gurminder was responsible for identifying and developing strategic B2B and JV relationships with large energy and forestry companies. Prior to joining Lignol, Gurminder was Head of R&D for Canfor Pulp Products, where his responsibilities included product development, technology partnerships, technical sales and marketing within North America and Asia. Gurminder holds a BSc in Chemistry from UBC, followed with a MBA from Simon Fraser.

#### About Performance BioFilaments Inc.

Performance BioFilaments is focused on the development of commercial applications for cellulose filaments. Derived from wood fibre, cellulose filaments can optimize the strength, stability, flexibility and longevity of a variety of materials including composites, coatings and consumer products. For more information, please visit [www.performancebiofilaments.com](http://www.performancebiofilaments.com).