

## ALBERTA BIO FUTURE PROGRAM HIGHLIGHTS

# LIGNIN-BASED RESINS

*Engineered wood products are currently 97 per cent bio-based, but soon they could be up to 99 per cent. The adhesives gluing together wood strands in oriented strand board (OSB) and the wood veneers in plywood are typically made from petrochemical hydrocarbons. Researchers at Hexion Canada's forest products R&D lab in Edmonton are developing ways to create new bio-based adhesives that incorporate lignin, a sticky compound in trees and a byproduct of the kraft pulping process.*

In fall 2017, Hexion completed expansion of its lab, the Plante Research and Development Centre, with addition of a pilot-scale, steam-preheated press. No other facility in the world has this capability to simulate modern commercial steam preheated OSB presses. This equipment is critical in proving the commercial viability of bio-modified resin performance. Alberta Innovates supported the expansion with funding from its Alberta Bio Future program in Project BFP-16-025. "Alberta Innovates has been instrumental in putting Hexion in contact with and encouraging collaboration with others in Alberta's bioeconomy," said Jay Taylor of Hexion Canada Inc. "Alberta Bio Future funding of this project demonstrates Alberta's continued investment in the forest products sector."

Based in Ohio, Hexion is a global leader in thermoset resin manufacturing for a multitude of sectors with more than 60 industrial facilities around the world. It considers Edmonton an important growth region for Hexion's global forest products business because of the city's proximity to key customers. Edmonton also has good logistics for getting products and ingredients to and from the U.S. Alberta has 10 panelboard and engineered wood product mills, and four kraft pulp mills.



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**Jay Taylor**  
Hexion Canada Inc





October 2017 Hexion open house in Edmonton with John Slayter (Hexion), Dale Plante (Hexion), Honourable David Eggen (Minister of Alberta Education), Steve Price (Alberta Innovates)  
Source: Hexion Canada Inc.

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The bioindustrial sector in Alberta holds great potential for growth. Innovative products and technologies that utilize sustainable, renewable resources are helping to diversify the province’s economy beyond oil and gas.

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