



DuraBind™ Bio-based Binders A Healthy & Sustainable Solution For Wood Panels

DuraBind is a no-added formaldehyde resin solution offering equal performance to UF/MUF resins with competitive economics and a significant reduction in carbon footprint.

The DuraBind family of engineered biopolymers is derived from natural inputs and tailored to meet competitive performance and economics using standard manufacturing approaches for particleboard, medium density fiberboard (MDF) and oriented strand board (OSB).

DuraBind has been used by market leaders for several years in the production of the most sustainable and lowest emitting wood panels. It offers consumers the safe, low carbon products they demand and improves air quality and safety in the workplace.



Mechanical Properties

Comparable properties to UF/MUF systems

- Internal bond
- MOE/MOR
- Swelling behaviour



Emissions

Formaldehyde-free system

- Enables CARB2, E0 & Japan F-Star
- LEED compliant

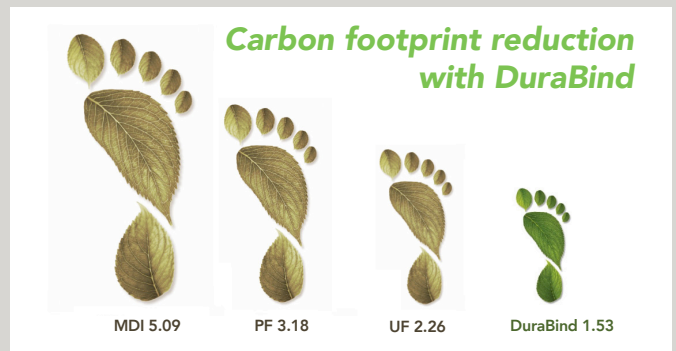


Processability

- Leverages existing equipment
- Cold tack to cross gaps on continuous presses
- Cycle times competitive with UF/MUF systems

Key Benefits:

- No-added formaldehyde for improved indoor air quality
- Meets or exceeds existing UF/MUF panel performance
- Press cycle times competitive to UF/MUF resins
- Competitive economics using readily available input materials
- Significant improvement in carbon footprint
- Manufactured at industrial scale globally
- Available in IBC/Totes or bulk tankers
- Runs on standard panel manufacturing lines with little or no modification



*Company estimates

It's Not About Emission Standards. It's About Elimination.

We're surrounded by wood panels. Formaldehyde is one of the primary binding agents used in wood composites and it is also recognized by an increasing number of health agencies as a human carcinogen. Why? Because it has been the only solution offering performance and cost for decades.....until now.

Exceed Expectations from Increasing Regulations

With increased pressure in all major markets to reduce and restrict the use of formaldehyde in a range of products, it is becoming more expensive and complex to achieve performance while meeting the latest standards. Using renewable binders to replace highly regulated chemicals in the production of particle board, MDF, and OSB enables you to meet stakeholder expectations and comply with legislation.

Cost Competitive

DuraBind delivers a bio-based no-added formaldehyde solution at comparable full system cost and performance to incumbent formaldehyde-based solutions. DuraBind is commercially available and produced at industrial scale globally and has been in commercial use with wood composites manufacturers for several years.

No Added Formaldehyde? No Problem

Wood composite products made with DuraBind engineered biopolymers can be used to meet the latest global formaldehyde emission standards.



CARB Phase 2
Compliant



Japan F ☆☆☆☆☆



E0 & E0.5 Rating

Compatible With Existing Operations

DuraBind binder systems are fully compatible with existing formulations and can be substituted within your current formulation, using your existing equipment, within consistent operating rates.

Using DuraBind allows you to gain a competitive advantage by choosing to include more sustainable materials in your supply chain – without increasing your operating costs.

The DuraBind family includes:

- An engineered biopolymer system achieving performance at low resin loading
- A tackifier to provide "green tack" to maintain mat integrity across press gaps
- A catalyst to optimize curing and achieve competitive press cycles vs UF/MUF



About EcoSynthetix

EcoSynthetix offers a range of sustainable engineered biopolymers that allow customers to reduce their use of harmful materials, such as formaldehyde and styrene-based chemicals. The Company's flagship products, DuraBind™, Surflock™, Bioform™, and EcoSphere®, are used to manufacture wood composites, personal care, paper, tissue and packaging products, and enable performance improvements, economic benefits and carbon footprint reduction.

The Company is publicly traded on the Toronto Stock Exchange (T:ECO).