

## Biobinder Data Sheet

### Product Description

Biobinder is an eco-friendly binding solution for paper, paperboard, and moulded pulp products. Biobinder is made of plant-based chemicals, and it imparts high water resistance and strength to the finished product.

| Properties                                     | Value                  | Unit             | Test Method/Standard |
|--|------------------------|------------------|----------------------|
| <b>Biobinder solution</b>                      |                        |                  |                      |
| Color  | Dark brown             | -                | -                    |
| Product form                                   | Liquid (aqueous based) | -                | -                    |
| Odor   | Slight woody odor      | -                | -                    |
| <b>Biobinder-treated paper</b>                 |                        |                  |                      |
| Thickness                                      | 120                    | µm               | -                    |
| Grammage                                       | 65                     | g/m <sup>2</sup> | TAPPI T410           |
| Tensile (Dry)                                  | 3.22                   | kN/m             | TAPPI T404           |
| Tensile (2 hours-wet)                          | 0.38                   | kN/m             | TAPPI T404           |
| Burst (Dry)                                    | 151                    | kPa              | TAPPI T403           |
| Cobb 120                                       | 30                     | g/m <sup>2</sup> | TAPPI T441           |
| <b>Biobinder-treated moulded pulp products</b> |                        |                  |                      |
| Thickness                                      | 1-3                    | mm               | -                    |
| Grammage                                       | 500-700                | g/m <sup>2</sup> | TAPPI T410           |
| Burst (Dry)                                    | 806                    | kPa              | TAPPI T403           |
| Burst (7 days-Wet)                             | 393                    | kPa              | TAPPI T403           |
| Cobb 1800                                      | 90-100                 | g/m <sup>2</sup> | TAPPI T441           |
| Water absorption (7 days)                      | 46                     | %                | ASTM D570            |

### Other Properties

- 100% biobased (USDA Biobased)
- Biodegradable
- Repulpable
- Durable in a wet environment
- Safe for food packaging (*Letter Of No Objection* from Health Canada)

### Examples of biobinder-treated moulded pulp products

- Biopots
  - Stable in greenhouse environment for 3 months – fully degraded in several months in soil.
  - No transplanting shock to plants
  - Fully plantable pots
- Food trays
  - Fresh produce such as cucumber, zucchini, mushrooms, etc.
  - Cold and dry food packaging
- Tree guards
  - Protecting young trees from animals and winds
  - Unlike plastic-based tree guards, guards will degrade naturally in field or forest

### Application

- Can be used with all types of fibre (Kraft, sulphite, TMP, recycled)