

Novozymes BioPrep® Fusion

**Easy and reliable
pre-treatment of
cotton knits**

BioPrep® Fusion is designed to give mills that look for water, time and energy savings the best pre-treatment.

Textile mills face the challenge of producing textiles with less use of water and less discharge of effluent with high chemical load, impacting both cost and permits to operate.

One of the heavy water consuming steps is the pre-treatment of fabric prior to dyeing. The conventional scouring process accounts for 25% of total water consumption in the manufacturing of knits and add a high load of chemicals to the effluent due to the use of strong alkaline and bleaching chemicals. Furthermore, the conventional process takes place at very high temperatures.

BioPrep® Fusion is a quick, yet gentle enzymatic scouring that works at neutral pH and below conventional scouring temperature. The enzymes break down the pectin that otherwise binds the wax to the cotton fibers. Once the pectin, wax and other impurities are removed from the cotton, with the specially formulated BioPrep® Fusion, the fabric is ready for dyeing.

Fabrics pre-treated with BioPrep® Fusion show an even dyeing result on medium and dark colors, and will have a reduced strength and weight loss compared to conventionally pre-treated fabrics. Finally, enzymatically pre-treated fabrics remain soft for longer, which either eliminates or reduces the need for adding softeners.

Benefits

- Instant absorbency for even dyeing – every time
- Substantial savings in water, time, and energy
- Broad recipe use
- Convenient all-in-1 product
- Reduced effluent volume and chemical load
- Environmentally friendly
- Quality improvement due to lower strength and weight loss

Simplified processes – 1 step instead of 3

BioPrep® Fusion is a 1 bath process, whereas conventional alkaline scouring requires 3 baths. This leads to substantial water, time and energy savings and secure a more sustainable profile for both mill operation and fabric output:



Save 67% water

by replacing a process that requires chemical neutralization and thorough rinsing



Save 50% time

by implementing a shorter and simpler process enabling optimized utilization of capacity

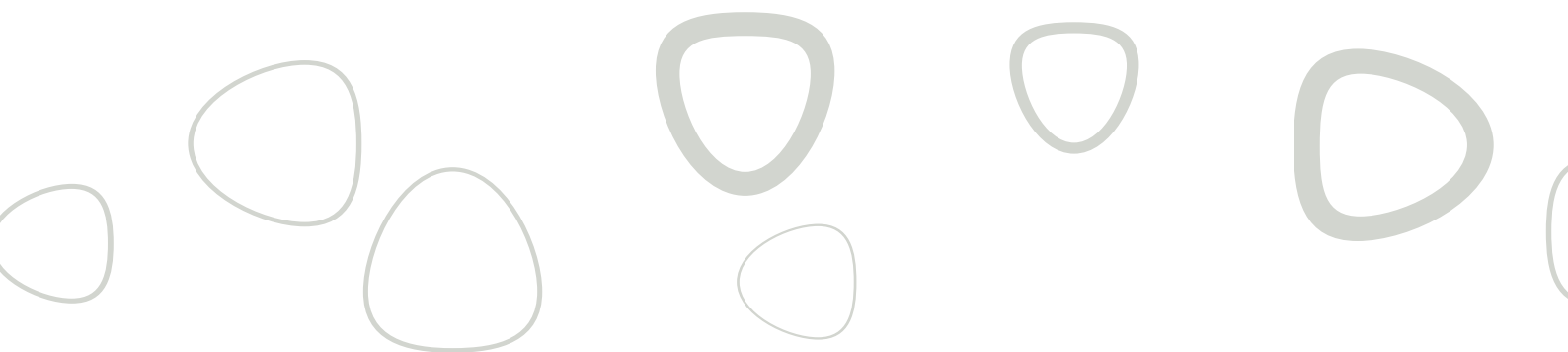


Save 50% energy

by using fast-acting enzymes that do not require high temperatures and get a lower electricity bill

An optimal composition in one complete product secures correct use

BioPrep® Fusion is a tailor-made and complete solution for knits to be used in jet dyer or similar equipment. This complete all-in-1 product secures convenient dosing and performance control. A complete solution gives a consistent and reliable result and eliminates the need for separate handling and optimization of wetting agents and emulsifiers.



About Novozymes

Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future. We call it Rethink Tomorrow.

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