



Enzyme solutions for the
textile and leather industry



Sustainable processing techniques

Pretreatment

Desizing

Optisize® NEXT	Alpha Amylase
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- Optisize® NEXT enzyme is a concentrated liquid-formulated alpha-amylase for textile desizing. Due to its outstanding performance at application temperatures ranging from 70 °C to 110 °C and good heat stability, Optisize® NEXT enzyme is the ideal amylase to use for desizing fabrics sized with starch, starch derivatives or blends of starch and other synthetic materials.

PrimaGreen® EcoSize Plus	Alpha Amylase
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- PrimaGreen® EcoSize Plus is a highly concentrated liquid alpha-amylase for textiles desizing over a wide temperature range. Due to its outstanding performance at application temperatures ranging from 20 °C to 80 °C, PrimaGreen® EcoSize Plus enzyme is the ideal amylase to use for desizing fabrics sized with starch, starch derivatives or blends of starch and other synthetic materials.

Scouring

PrimaGreen® EcoScour	Pectate Lyase
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- PrimaGreen® EcoScour is a concentrated liquid formulation containing a pH-neutral pectate lyase enzyme. Bioscouring is the use of pectate lyase combined with detergents/wetting agents to remove non-cellulosic impurities from cotton fibers. (Bio)scouring enhances cotton wettability and absorbency.
- Pectate lyase hydrolyzes pectin into soluble compounds facilitating the removal of other impurities (e.g. wax and protein) from the cotton during the bioscouring process.

Bleaching

PrimaGreen® EcoWhite 10	Arylesterase
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- PrimaGreen® EcoWhite 10 enzyme is designed for textile bleaching and catalyzes the in situ perhydrolysis of propylene glycol diacetate (PGDA) to form propylene glycol and peracetic acid at neutral pH and a wide temperature range. The enzymatically generated bleach combined with surfactant, complexing and dispersing agents produces excellent whiteness of cotton yarns and fabrics.
- The enzymatic bleaching system allows for mild processing conditions resulting in superior fabric quality, and reduction of energy in process.

Dyeing

Peroxide Killers

PrimaGreen® OXY	Catalase
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- PrimaGreen® OXY enzyme is a highly concentrated liquid catalase which is ideally suited for peroxide removal after bleaching. The product has been proven to be 100 % effective in catalyzing the decomposition of hydrogen peroxide into oxygen and water. These degradation products have no effect on dyestuffs in a subsequent dyeing step.
- In textile processing, enzymatic decomposition is often the most preferred mode of hydrogen peroxide removal after bleaching. The use of catalase is simple and provides a more economical and environmentally friendly method of peroxide removal when compared to traditional methods. PrimaGreen® OXY is produced in a fermentation process and is biodegradable.

PrimaGreen® OXY 400	Catalase
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- PrimaGreen® OXY 400 enzyme is a concentrated liquid catalase which is ideally suited for peroxide removal after bleaching. The product has been proven to be highly effective for catalyzing the decomposition of hydrogen peroxide into oxygen and water. These degradation products have no effect on dyestuffs in a subsequent dyeing step.
- In textile processing, enzymatic decomposition is often the most preferred mode of hydrogen peroxide removal after bleaching. The use of catalase is simple and provides a more economical and environmentally friendly method of peroxide removal when compared to traditional methods. PrimaGreen® OXY 400 is produced in a fermentation process and is biodegradable.

Finishing

Biopolishing

Primafast® GOLD HSL

Cellulase

- Primafast® GOLD HSL is a concentrated neutral cellulase enzyme formulation for textile biofinishing in mills and laundries. This unique product provides surface defibrillation yielding superior fabric and garment cleanup under neutral pH conditions in all types of processing equipment. Primafast® GOLD can perform at lower than conventional process temperatures and dyeing can follow directly after Primafast® GOLD treatment in the same bath, thus saving time, energy and water.

PrimaGreen® PowerFinish

Cellulase

- PrimaGreen® PowerFinish is a stable, highly concentrated granular cellulase enzyme for textile bio-finishing in mills and laundries.
- This unique product provides surface defibrillation yielding superior fabric and garment cleanup in a broad range of pH conditions in all types of processing equipment.
- PrimaGreen® PowerFinish can perform at lower temperatures than conventional products and dyeing can follow directly after PrimaGreen® PowerFinish treatment in the same bath, thus saving time, energy and water.

Primafast® GOLD RSL

Cellulase

- Primafast® GOLD RSL is a ready-to-use enzyme formulation for textile bio-finishing in mills and laundries. This unique product provides surface defibrillation yielding superior fabric and garment clean-up under neutral pH conditions in all types of processing equipment.
- Primafast® GOLD can perform at lower than conventional process temperatures and dyeing can follow directly after Primafast® GOLD treatment in the same bath, thus saving time, energy and water.

Primafast® Finish Plus

Cellulase

- Primafast® Finish Plus enzyme is a highly concentrated multi-component cellulase designed for biofinishing of cotton and other cellulosic fibers in an acid pH range. Primafast® Finish Plus enzyme establishes a new standard in fabric and garment defibrillation under a wide range of acid pH conditions in all types of processing equipment.

Primafast® Luna CL Plus

Cellulase

- Primafast® LUNA CL Plus enzyme is a highly concentrated, component cellulase specifically designed to be used for finishing of cotton and other cellulose fibers such as Lyocell and linen under acid pH conditions. It provides complete fibrillation control to generate superior and durable finishes.

Primafast® 200

Cellulase

- Primafast® 200 enzyme is a concentrated liquid formulation of cellulases designed for fabric and garment biofinishing applications under acid pH conditions. Primafast® 200 is ideal for biofinishing of cotton, lyocell and other cellulose fibers different from linen. It provides complete fibrillation control to generate superior and durable finishes.
- Primafast® 200 works well with high and low mechanical action processing; thus, providing robust results in garment and fabric biofinishing. It is GMO-free and conforms to GOTS.

Processing

Stonewashing

IndiAge® Super L

Cellulase

- IndiAge® Super L enzyme is a liquid cellulase product which is specifically designed for use in premium, high-contrast denim finishing. IndiAge® Super L enzyme is a low temperature cellulase that allows the denim abrasion process to take place at low temperature. This results in lowering of energy consumption and decreasing the ecological footprint of the treated denim.

IndiAge® Super GX Plus

Cellulase

- IndiAge® Super GX Plus is a concentrated cellulase, specifically designed to be formulated for use in premium, high-contrast denim finishing.
- IndiAge® Super GX Plus is a low temperature cellulase that allows the stonewashing process to take place at low temperatures. This results in lowering of energy consumption and decreasing the ecological footprint of the treated denim.

IndiAge® ONE

Cellulase

- IndiAge® ONE is a super concentrated granular cellulase enzyme for denim finishing. This unique product has a broad pH and temperature range and has the ability to attain high contrast and low backstaining on denim fabric upon formulation. It is the only enzyme you need to produce a wide range of denim abrasion looks in different process conditions.

Bleaching/Fading

PrimaGreen® EcoFade LT100

Laccase

- PrimaGreen® EcoFade LT100 enzyme is an unique indigo bleaching product, that contributes to improved sustainability of denim garments processing. PrimaGreen® EcoFade LT100 performs in ambient temperatures, helps in saving energy and water, replaces harsh chemicals and reduces CO₂ emissions.
- PrimaGreen® EcoFade LT100 is a ready to use formulation consisting of a new laccase enzyme and a new type of mediator, designed for denim bleaching, and indigo shade adjustment. EcoFade LT100 enzyme product enables creation of completely new vintage looks, whether it is a grey cast, high contrast, or highly bleached effect.

Leather solutions

Processing

Bating

Genecor® Tan L Plus

Protease

- Genecor® Tan L Plus enzyme is a concentrated liquid alkaline protease developed for leather processing. The enzyme is especially suited for degradation of non-collagenous hide components during the bating process.

Genecor® Tan G Plus

Protease

- Genecor® Tan G Plus enzyme is a concentrated low dusting granular alkaline protease developed for leather processing. The enzyme is especially suited for degradation of non-collagenous hide components during the bating process.

PrimaTan®

Protease

- PrimaTan® enzyme is a concentrated liquid alkaline protease developed for leather processing. PrimaTan® is especially suited for replacing conventional (bacterial) proteases and pancreatic trypsin in leather processing, e.g. soaking and bating.



Biesterfeld

Competence in Solutions

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