

COLOURizdTM

COLOURizd™ is a commercial technology to color cellulosic yarn. This unique process colors yarn in a very sustainable way. Compared to the traditional dying method of fiber reactive dyeing, COLOURizd™ allows for zero discharge of harmful chemicals, radically reduces water usage by +98%, increases the efficiency of chemical consumption, reduces the standard infrastructure needs, and reduces energy consumption by 50%.

Yarns are colored using a direct color application method we call COLOURizd™. This process creates yarns with a "washed down" appearance at the yarn stage, eliminating future washing at the garment or fabric stage. This washed appearance is a key look targeted by many brands and represents the bulk of fabric created for the casual market in both home and apparel.

BEAUTY

The beautiful texture that you see in our fabrics is created at our color application step, this eliminates the need to wash down products creating another level of sustainability and cost reduction.

TECHNOLOGY

Yarns are colored using a direct color application method. This process eliminates the need for a dye bath in the coloring of cellulosic fibers.







73%

PRODUCTION

COLORizdTM is available

FIBERS

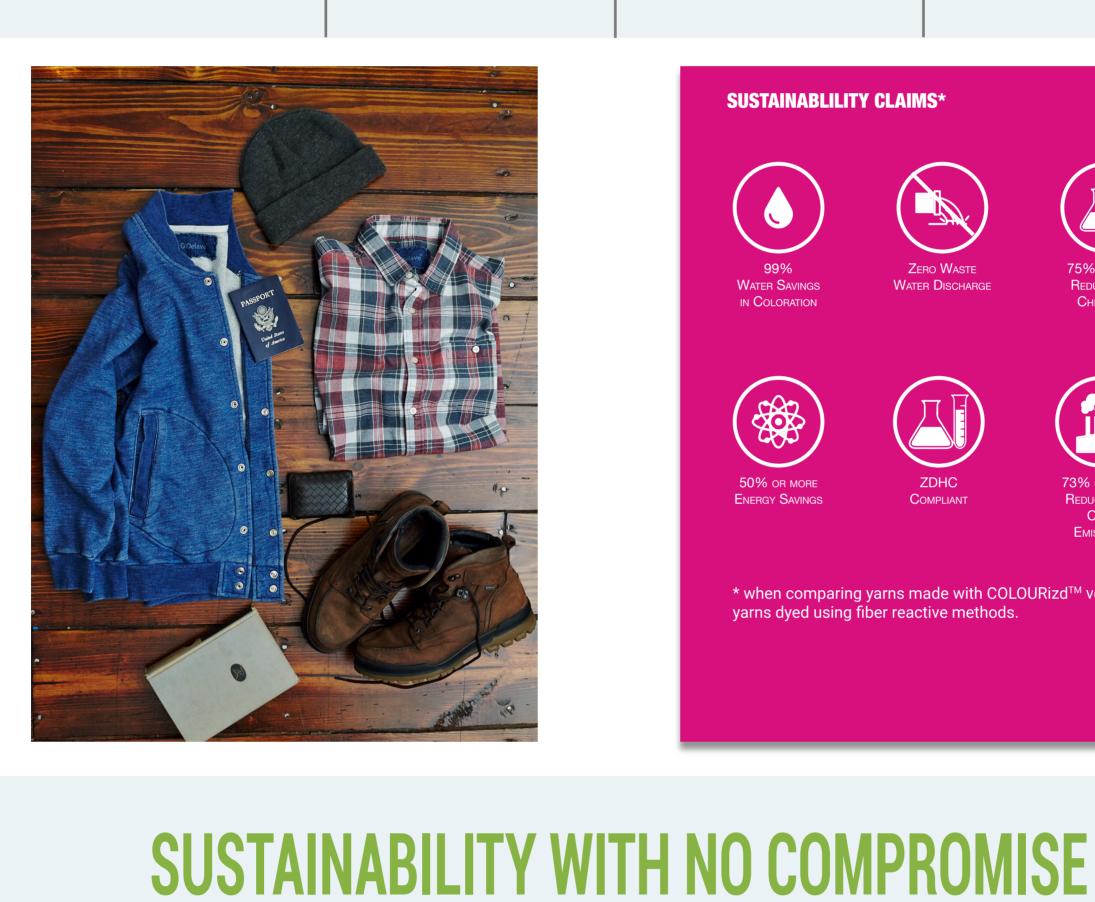
on any cellulosic fiber, including cotton, hemp, linen, viscose, bamboo viscose, and Lenzing[™] fibers.

WHY CHOOSE YARNS MADE BY COLOURIZD™?

98% **REDUCTION IN WATER USAGE**

REDUCTION IN CO² EMISSIONS

75% REDUCTION IN CHEMICALS





BEAUTY • QUALITY • PERFORMANCE

sustainability, cost reduction, and beauty. COLOURizdTM is a coloration technology that can replace fiber reactive dying, indigo dying, or pigment dying, in many

cases.

or fabric stage.

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the need to wash down products creating another level of

Yarn created using COLOURizdTM have a washed down look and can be used in either knitting or weaving. This washed down look is often the desired final look. But, in traditional dying, the yarn/fabric/garment would be dyed to be solid color. Then washed using a variety of chemicals and mechanical processes to remove some of the color

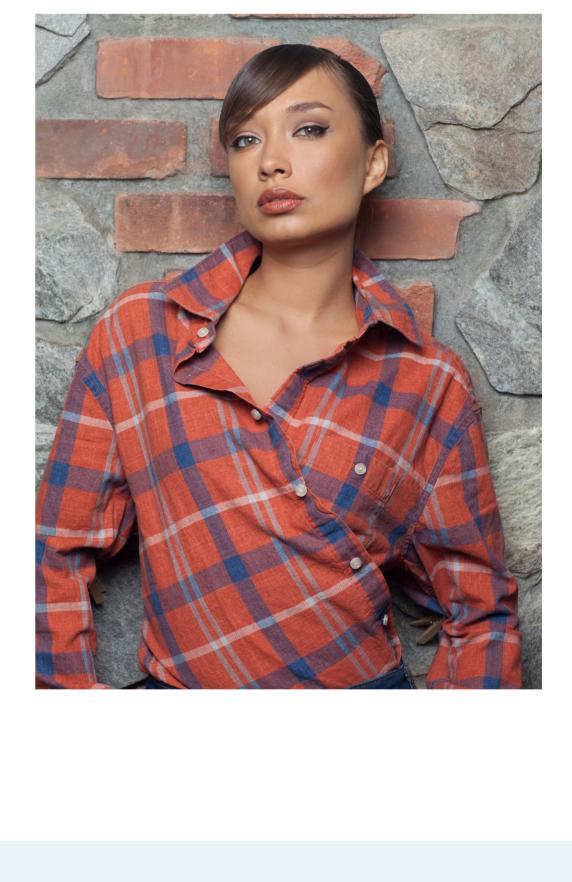
and soften the look. A good example of this would be many denim or chambray products. They are often dyed a deep color and then processed down to create that softer look. In contrast, with COLOURizdTM this look is created in one step. Unbleached yarns, are colored to produce this texture at yarn stage. This eliminates the need for further aggressive processing. With the COLOURizdTM process only one neutral enzyme wash is recommended at garment/product

washing at fabric or garment stage. **SUSTAINABILITY CONFIRMED**

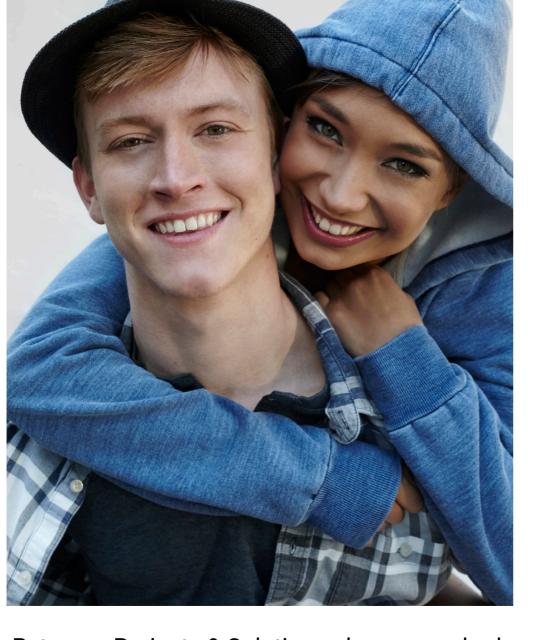
This unique processes allows for cost saving through out

the product development supply chain. No bleaching of

yarns prior to processing, efficient coloration, and minimal



Today, we consider COLOURizd™ to be one of the most rigorously scrutinized processes in the industry.



goals of zero effluent, 99% reduction in water usage, no harmful chemicals, and a significant decrease in our carbon footprint.

We are proud that COLOURizd™ could meet our audacious

Our currently marketed fabrics and yarns made with the COLOURizd™ process have the distinction of holding the STANDARD 100 by OEKO-TEX® and Made in Green certifications. In addition, the facility meets the requirements for various ISO standards and the STeP by OEKO-TEX®

Certification that are factory specific. Peterson Projects & Solutions researched our carbon footprint claim and found that the COLOURizd™ process produced an improvement of 73% in terms of carbon footprint (emissions) compared to the conventional process

for fiber reactive colored yarn production. The COLOURizd™ process emits only 29.50 KgCO2e/Kg of colored yarn, while the normal fiber reactive yarn dyeing process emits 109.70 KgCO2e/Kg of colored yarn.

Peterson Projects & Solutions also researched our zero effluent claim. They found that the COLOURizd™ process saves 99% of water consumption compared to the conventional process for fiber-reactive colored yarn production. They also noted that the COLOURizd™ process produced 0 (zero) effluent compared to conventional fiber reactive, typically sending 93.92 liters of polluted water into our lakes and streams per Kg of Colored yarn.

normal fiber reactive conventional fiber reactive yarn dyeing process used 94.92 liters of water per Kg of colored yarn and produced 93.92 liters of effluent.

The COLOURizd™ process used 0.95 liters of water per Kg of colored yarn while producing 0 effluent, while the

These two certifications set the COLOURizd™ process completely apart from all other yarn coloration systems.

We believe that we create a product and technology that follows the motto "Sustainability without Compromise."



COLOURizdTM

COLOURizdTM is a coloration technology that can replace fiber reactive dying, indigo dying, or pigment dying, in many cases.

Yarn created using COLOURizdTM have a washed down look and can be used in either knitting or weaving.

This washed down look is often the desired final look. But, in traditional dying, the yarn/fabric/garment would be dyed to be solid color. Then washed using a variety of chemicals and mechanical processes to remove some of the color and soften the look. A good example of this would be many denim or chambray products. They are often dyed a deep color and then processed down to create that softer look.

In contrast, with COLOURizdTM this look is created in one step. Unbleached yarns, are colored to produce this texture at yarn stage. This eliminates the need for further aggressive processing. With the COLOURizdTM process only one neutral enzyme wash is recommended at garment/product or fabric stage.

This unique processes allows for cost saving through out the product development supply chain.

No bleaching of yarns prior to processing, efficient coloration, and minimal washing at fabric or garment stage.

COLOURizdTM can create a wide spectrum of color. As it is a pigment and binder system, any color available as a pigment can be used to color yarns. We recommend using only pigments that are Blue Sign Approved.

As this is a coloration system we have no need to produce white, as that is achieved through a bleach process. We also do not produce a solid black yarn, but rather a dark charcoal color. This should be an area for future development to create formulas that create fully solid yarn.



Our goal is to expand the choices for sustainability of cellulosic fabrics. Until now, the only option in sustainability for cellulosics has been to choose more sustainable fibers. While this is an excellent choice, it doesn't go far enough for an industry that contributes over 20 percent of the industrial water pollution globally.

The processing of coloring fiber must be addressed, and we do just that. We actively produce on an industrial level, products which rigorously challenge the amounts of water and pollution needed to color textiles, creating sustainable options for our customers.

FOUNDERS STATEMENT

"We have invested millions of dollars, over more than a decade, to develop an elegant production process for the coloration of cellulose.

This dyeing method releases the requirement of using

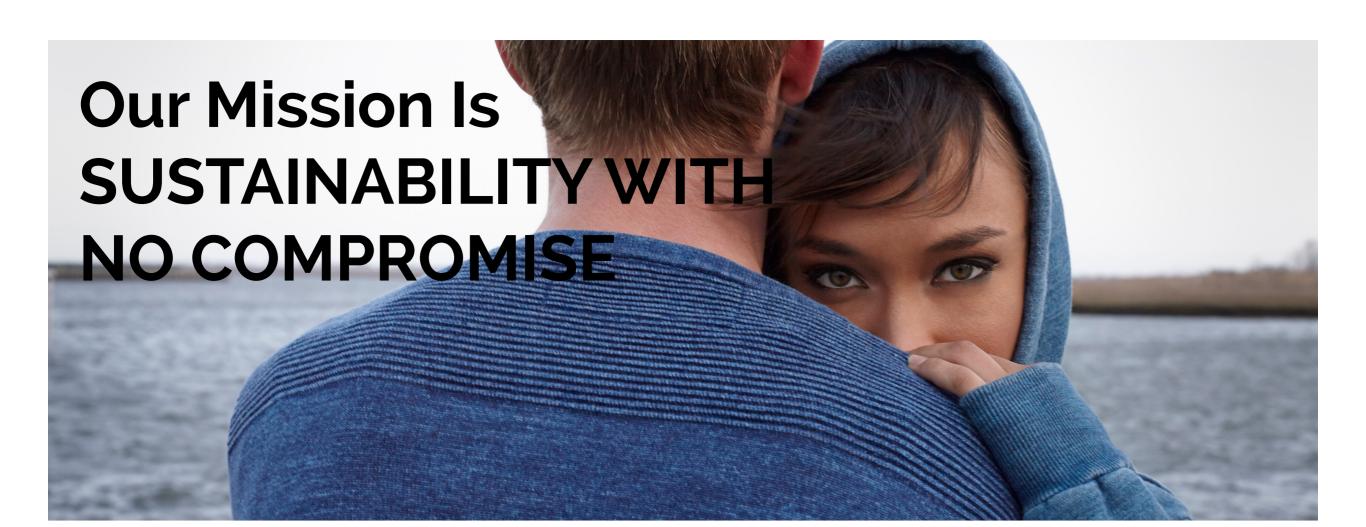
copious amounts of clean water to process and dye cellulose fibers. We can now produce colored cellulose yarns and fabrics that are of the highest commercial quality, requiring little water, producing no effluents, and using a limited number of safe certified chemical products.

Utilizing coloration technology that acts on cellulose at

the molecular level as a goal for focused research and

development, has guided us towards a new coloration technology for cellulose that achieves the objectives for sustainable textile products."





FREQUENTLY ASKED ???

What is COLOURizd™?

COLOURizdTM is a yarn coloration technology that can replace fiber reactive dying, indigo dying, or pigment dying, when coloring cellulosic yarns. Yarn created using COLOURizdTM has a washed down look that is created at the coloration stage. This coloration and washed down effect is done with virtually no water and no pollution.

How can I tell the difference between products created using the COLOURizd™ technology and conventionally produced products?

As a consumer, you CANNOT see the difference in look or performance. The products appearance is identical to some of your most loved products in your closet. Our technology team has worked hard to mimic the looks that consumers love and ensure that performance remains equal and in most cases is better than the traditionally produced product.

If you are a textile expert, you can see the differences when there is a side by side comparison done under a high powered microscope. But we feel most consumers won't go through this trouble, they will just see a product that they love.

How can I use yarns made with COLOURizd™ and what are the advantages? COLOURizd™ yarns can be used to make many products. Especially ones that have the w

COLOURizd™ yarns can be used to make many products. Especially ones that have the washed down look. These yarns can be used in woven tops and bottoms, knits, and sweaters. We even have customers that use them in home textiles.

COLORizd™ yarns look washed down upon coloration. As this washed down look is often the desired final look we feel these yarns are an advantage in product development. In traditional dying, the yarn/fabric/garment would be dyed to a solid color. Then washed using a variety of chemicals and mechanical processes to remove some of the color and soften the look. A good example of this would be many denim or chambray products. They are often dyed a deep color and then processed down to create that softer look. This washing can produce inconsistent results in color which can cost brands and retailers money in unusable product.

In contrast, with COLOURizd™ this washed down look is created in one step. Unbleached yarns, are colored to produce this texture at yarn stage. This eliminates the need for further aggressive processing. With the COLOURizd™ process only one neutral enzyme wash is recommended at garment/product or fabric stage. This creates a consistent and repeatable color that retailers and brands can count on.

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This unique process allows for cost saving throughout the product development supply chain. No bleaching of yarns prior to processing, efficient coloration, and minimal washing at fabric or garment stage.

What is the environmental impact of the COLORizd[™] technology? COLOURizd[™] products are made in a radically more sustainable way than traditionally dyed products.

There is greater than 98% water savings over traditional dyeing techniques. This is very important as the textile industry

currently contributes over 20% of the world's industrial waste water pollution. All of this pollution is eliminated with COLOURizd™ technology.

Also, there is a 73% reduction in the carbon foot print needed to manufacture our products. And don't take just our word

for it. This information has been independently verified by Peterson Projects & Solutions.

Our process is highly efficient using over 98% of our colorant on the product itself and therefore reducing chemical waste. Traditional products using fiber reactive dyes regularly waste over 40% of their chemicals which can eventually be

released in to our rivers and streams. COLORizd™ totally eliminates any waste discharge from our process.

Aren't sustainable products more

EXPENSIVE?COLOURizd™products are NOT more expensive than traditionally made products. As a matter of fact, they can be produced less expensively due to a savings of water and energy, a reduction in processing steps, and higher efficiencies in chemical

What colors can you make with

(we recommend only those that are bluesign@ approved) can be used to color yarns.

usage.

crocking in action.

COLORizdTM?

COLOURizd™ can create a wide spectrum of color. As it is a pigment and binder system, any color available as a pigment

Currently, we have hundreds of color formulas that have been used in production, ranging from ivory to charcoal with all

hues represented, red, orange, yellow, green, blue, and violet. As this is a coloration system we have no need to produce

white, as that is achieved through a bleach process. We also do not produce a solid black yarn, but rather a dark charcoal color.

Many of your samples look like Indigo

denim, are they really Indigo? COLOURizd™ has the ability to emulate indigo dyed fabrics without using Indigo Dyes. Indigo is loved for the depth of color layers and its ability to look worn and comfortable. While Indigo yarns are a desirable look they have many issues with processing. COLOURizd™ has been used successfully to emulate indigo dyed fabrics. While no actual indigo dye is used in creating these looks the consumer cannot see or feel a difference. COLOURizd™ fabrics exceed indigo fabrics in

many aspect of performance and manufacturability.

The following statements compare performance attributes between traditional indigo dying methods and COLOURizd™.

• Crocking/Color Transfer: Yarns processed using the COLOURizd™ meet or exceed retail standards for crocking. Crocking is the transfer of dye from the surface of a dyed or printed fabric onto another surface by rubbing. If you have ever seen a woman with a white purse that has been stained blue by their denim jacket you have seen textile

next to or processed with COLOURizd™ yarns. In a very practical sense this means that pocket bags on jeans remain the color you want them to be and don't blue out with washing.
Ability to knit: While indigo dyed garments are a desired fashion statement they rarely appear in knitted garments or sweaters. This is because traditionally indigo dyes damage production equipment. In addition, indigo dyed yarns

Color Bleeding: Yarns processed using the COLOURizd™ do not bleed so there is no staining of lighter colors that are

- become weaker after dying and therefore are harder to process. In contrast, COLOURizd™ yarns are easily knit into light weight knit fabrics or sweaters. These yarns do not have issues with dye transfer and the yarns are stronger after coloration.

 Color Consistency: Most jean shades are create through washing down dark indigo fabrics. This process is highly variable and results in the retailer needing to accept shade bands of color. In contrast, fabrics made with the

COLOURizd™ process are consistent and easily reproduced batch after batch.