

A photograph of several outdoor lounge chairs with light-colored wooden frames. The chairs are arranged in a row, receding into the background. They are upholstered with light grey fabric. Several decorative pillows are placed on the chairs: some are solid dark grey, and others feature a bright yellow pattern of small, dark, irregular shapes. The background shows a blurred outdoor setting with green trees and a hint of a building.

PRESENTED BY  
INSIDEOUT PERFORMANCE FABRICS

# MYTH VS. FACTS

**OUTDOOR FABRICS**

THE TRUTH ABOUT TODAY'S TECHNOLOGY



# THE CARROT & THE RADISH

## A TALE AS OLD AS TIME

We've all heard the carrot and radish story as a way to describe the difference between solution-dyed fabrics and yarn-dyed fabrics. This story was a great way to bring a visualization to how color fastness can be achieved, but the fact of the matter is that

YARN DYEING TECHNOLOGY  
HAS ADVANCED EXPONENTIALLY.

The carrot and radish story does not provide an accurate or all encompassing understanding of what actually makes a fabric suitable for the outdoors.

OUTDOOR FABRICS REQUIRE MORE  
PERFORMANCE CHARACTERISTICS THAN  
JUST FADE RESISTANCE.

All fabrics are not created equally. Some are more durable and cleanable than others and some are more decorative than others - it all depends on the fiber type.

EVERY FIBER TYPE HAS  
ITS POSITIVES AND NEGATIVES.





## POSITIVES

Color Fastness  
Up To 5 Years



## NEGATIVES

Durability  
High Minimums  
Limited Aesthetics

# SOLUTION-DYED ACRYLIC

A solution-dyed acrylic is dyed before the yarn is ever created.

A solution-dyed fiber has color all the way through. This is achieved by mixing a liquid acrylic solution with dye, forming it into a fiber and then spinning it into yarn.



## POSITIVES

Durability  
Cleanability  
Aesthetic



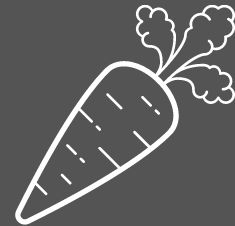
## NEGATIVES

Inherent UV Resistance  
Up To 3+ Years  
Lower Heat Profile

# SOLUTION-DYED OLEFIN

A solution-dyed olefin is dyed before the yarn is ever created.

A solution-dyed fiber has color all the way through. This is achieved by mixing a liquid olefin solution with dye, forming it into a fiber and then spinning it into yarn.



## POSITIVES

Durability  
Cleanability  
Aesthetic



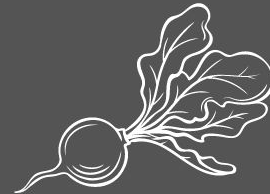
## NEGATIVES

Color Fastness  
Up To 3+ Years

# HIGH-ENERGY DYED POLYESTER

A high-energy dyed polyester is yarn-dyed.

With yarn-dyed fabrics, color is added after the fiber has been spun into yarn. By using a high-energy interval dyeing process and adding a UV inhibitor, color fastness and fade resistance is achieved.





# THE METHODOLOGY OF HIGH-ENERGY DYEING CAME FROM THE AUTO INDUSTRY.



High-energy dyeing was developed by and is still widely used in the auto industry. Valdese Weavers has been utilizing high-energy dyeing technology in their hospitality and contract business sector for 15 years.

# SCIENCE

## NOT A STORY

Solution-dyed yarns are NOT  
the only suitable yarns for outdoor use.

### HOW DOES HIGH-ENERGY DYEING WORK?

A yarn starts at the normal state and when the high-energy interval dyeing process begins, the molecular structure of the yarn opens up exponentially at each interval stage due to incredibly high temperatures

While the yarn is opened at the interval stages,  
high-energy dye stuffs are inserted into the yarn.

Then, the high temperate heat is cut out completely,  
which causes the molecular structure to collapse around the  
dye stuffs and gives color to the yarn that can be exposed  
to UV rays and withstand bleach.

A UV inhibitor is added into the dye stuffs and acts as a  
sunscreen, adding another layer of UV protection to the yarn.



**INSIDEOUT  
PERFORMANCE FABRICS  
MIXES  
SOLUTION-DYED OLEFIN  
AND  
HIGH-ENERGY DYED  
POLYESTER.**

Mixing these fiber types gives us maximum flexibility in color and design. This allows us to make a wide range of products that are appropriate for all kinds of customers.







## LOOK & FEEL

An aesthetic that aligns with a high-end interior look as opposed to a canvas or awning look. Multi-fiber fabrics have a better hand and many more design options than a single fiber.



## CUSTOMIZATION & MORE COLORS

Yarn-dyeing is able to be done in much smaller quantities than solution-dyeing; allowing for more customized products and a greater color assortment.



## INCORPORATE RECYCLED PRODUCTS

Ability to integrate recycled products from great partners like SEAQUAL INITIATIVE and others.



# THE BENEFITS OF A MULTI-FIBER PLATFORM





# The Facts

## OUTDOOR FABRICS REQUIRE MORE THAN COLOR FASTNESS

The carrot and the radish story doesn't sum up what an outdoor fabric is or what it needs to be. Outdoor fabrics are exposed to water, mildew and much more. Durability is HUGE.

## A FABRIC DOES NOT NEED TO BE SOLUTION-DYED TO ACHIEVE COLOR FASTNESS OR FADE RESISTANCE

Just like our cars, phones and computers show us every day - technology is advancing at a rapid pace. The chemistry and technology behind yarn-dyeing has come an incredibly long way since the first carrot and radish comparison story.

## A SINGLE FIBER PLATFORM LIMITS DESIGN, PERFORMANCE AND INNOVATION

Putting all your eggs in one fiber basket really limits your ability to be a textile trend-setter, push performance boundaries and incorporate innovative new products into your fabrics. A multi-fiber platform is versatile, customizable and let's be honest - much better looking.

## STRENGTH IN GLOBAL SUPPLY CHAIN

Polyester and olefin are significantly more available globally than acrylic. There are many more polyester and olefin suppliers throughout world than there are acrylic suppliers; making those fibers more reliable in a supply chain.





To learn more, please visit  
[www.InsideOutPerformanceFabrics.com](http://www.InsideOutPerformanceFabrics.com)