



## What is WeatherMax? Individual Needs, Special Orders, and Product Flexibility Performance Care and Cleaning Fabrication

### What is WeatherMax®?

**What Exactly Is SaturaMax™ Yarn?** SaturaMax is Unifi's family of 100% solution dyed yarns, produced in a wide array of saturated colors. Perfect for a variety of end-uses, SaturaMax has superior color consistency, light fastness characteristics and is bleach cleanable. The color process used to create SaturaMax saves several gallons of water per pound of yarn produced, making it environmentally friendly.

**What Is An Ottoman Weave and How Does It Improve the Fabric Durability?** An Ottoman weave is a combination of Plain weave and Basket weave, allowing WeatherMax to offer the best combination of strength, durability, and stability. It gives WeatherMax its firm feel and a very subtle ribbed texture, refined to the eye and luxurious to the hand.

**Why Do You Have a WeatherMax 80 and a WeatherMax LT?** The 80 or LT following WeatherMax are indications of its weight. For example 80 is 8.0 oz/yd<sup>2</sup> and LT is 6.5 oz/yd<sup>2</sup>. The reason for both weights is to provide our customers with the best product for their application. Typically, WeatherMax 80 is recommended for applications where strength and durability are the main concern (Marine, Awning), while WeatherMax LT is used where protection from the environment is the main concern (Covers, Cushions, Umbrellas). We also now offer WeatherMax FR, 8.5 oz/yd<sup>2</sup>, for applications (Commercial Awnings, Tents) where resistance to fire is a concern.

**Why Does WeatherMax LT Have a Different Weave?** WeatherMax LT has a different weave for applications where strength and durability are not the primary concern, with more emphasis being placed on a lightweight product that offers protection from the environment, this being of utmost importance.

**What Does Solution Dyed Yarn Mean and How Does It Make An Outdoor Fabric Better?** A solution dyed yarn is a yarn where the color has been added into the polymer before it is extruded into a yarn form. Since the color is part of the polymer, the fade resistance of a solution dyed yarn is far superior to the fade resistance of package dyed yarn and piece dyed fabric. The solution dyed polymers in WeatherMax have been specially chosen for their unique ability to resist fading and retain fabric strength.

**What Is the HydroMax™ Finish?** The HydroMax finish is a highly water repellent finish that gives WeatherMax the ability to protect against heavy rain while keeping its breathability and dimensional stability. An anti-microbial component is added to the finish to prevent mildew growth on the fabric. The HydroMax finish is extremely durable, providing many positive benefits, such as breathability, resistance to mildew and dirt, and its ability to maintain a cooler temperature.

**Why Doesn't WeatherMax Have a Back Coating?** WeatherMax does not have a coating to allow the fabric to breathe, so heat and water vapor can evacuate, which is essential in preventing mildew growth. We believe WeatherMax to be the most well balanced fabric available providing a high water resistance while not sacrificing breathability.

**What Is DWR? How Long Will It Last?** DWR stands for Durable Water Repellent. The exclusive HydroMax finish applied to the fabric is very durable, even after 5 laundry cycles and sun exposure, it still repels water quite effectively. The duration of the DWR's life depends on many factors, but it can be expected to last anywhere between 3.5 to 5 years before it begins to lose its potency at which point it may be required that one spot treat WeatherMax with a product like 303.

**What Is the Hydrostat Test?** The Hydrostat test measures the maximum water pressure a fabric can hold before it starts to leak. For example, a fabric with a 39 Hydrostat, like most acrylics, will hold 39 cm (15 inches) of water before leaking, where WeatherMax, with a Hydrostat of 65 cm (25 inches) of water.

**What Do You Mean, WeatherMax Is Guaranteed To 1500 Hours UV? How Long Will This Last?** 1500 hours of UV refers to the number of hours WeatherMax is tested in an accelerated Weathering System exposed to all spectrum UV, in addition to water, and changes in temperature and humidity. 300 hours of exposure in one of these machines is the industry standard or equivalent of one year outdoors.

**WeatherMax 80 comes with a limited warranty of 5 years (1500 hours). WeatherMax LT comes with a limited warranty of 3 years (1000 hours). How Do You Test To 1500 Hours?** The fabric is tested to AATCC Test Method 169. It is exposed to all spectrums of UV rays and moisture for 1500 hours and the resulting color is compared to the initial color and rated.

**What Is the Color Rating After 1500 Hours and How Does This Compare To Acrylic Fabrics?**After 1500 hours, on a scale from 1 to 5, the color rating is 4.5, the same as Acrylic fabrics.

**What Type of Edge / Selvedge?**WeatherMax comes in 60-inch width with a fused selvedge, allowing fabricators to use it right off the roll. Because it is made with filament yarns, the fused edge of WeatherMax will not unravel like the trimmed edge of acrylic fabrics.

**How Many Colors Are Offered?**At the present time, we offer 17 solid colors, but we are continuing to develop new colors as we expand the WeatherMax line of products. Most recently, we released WeatherMax 80 in 3 tweeds; Forest Tweed, Cardinal Tweed, and Sapphire Tweed.

**How Is WeatherMax Shipped?**WeatherMax 80 is available in 75-yard rolls with a 60-inch usable width with fused edges. WeatherMax LT is available in 100-yard rolls with a 60-inch usable width with fused edges. WeatherMax FR is available in 65-yard rolls with a 60-inch usable width with fused edges.

## Individual Needs, Special Orders, and Product Flexibility

**Is WeatherMax Available In a Fire Retardant State?**Yes; WeatherMax FR provides the superior color retention and strength of WeatherMax combined with the most advanced technology in flame retardancy. WeatherMax FR is California State Fire Marshal-Title 19 approved, passes CPAI-84 Class I or Class 1, ASTM E-84, NPFA 701 Test Method 1 & 2, and the Horizontal Flame Test FMVSS 302 (Federal Motor Vehicle Safety Standard 302).

**Are All Styles Of WeatherMax Available In a Flame Retardant State?**No; currently, we offer 10 styles in WeatherMax FR, Pacific Blue, True Red, Burgundy, Captain Navy, Black, Light Charcoal, Toast, Yellow, White, and Forest Green.

**Can You Do Special Colors and What Is the Minimum Yardage Required?**Special colors can be developed upon request. Due to the difficulty involved in developing solution dyed yarns with excellent UV resistance, there will be specific ordering requirements involved.

**How Long Does It Take To Develop a Special Color?**Typically, it takes several months to develop a new color, because of the solution dyed yarn development process and our thorough UV testing required for a new color to meet our stringent standards of WeatherMax performance.

**Is WeatherMax Available In Stripes?**Not in our present commercial product line, but stripes, color combinations and textured weaves may be available depending on factors such as volume, minimums, lead time, etc.

**Can You Do a Special Width and What Would Be the Minimum Slit Width Available? How About With the Selvedges Still Intact?**Upon request, WeatherMax can be ordered with selvedges still intact based on customer need. Also, special width can be accommodated (from 3 to 85 inches). Both of these require prior notification with ample time to process special orders.

**Are Short, Cut Rolls Available For Sale?**WeatherMax is available in cut yardage. Contact your WeatherMax distributor.

**Is Marine Binding Available Manufactured Out of WeatherMax?**WeatherMax marine binding is available. Please contact your distributor for further information.

## Performance

**Why Is Fabric Breathability Important? Do Any Coated Fabrics, Including Surlast, Breathe?**Fabric breathability is important because it allows water vapor pass through; preventing mildew growth and heat build up. By definition, coated fabrics do not breathe because of the coated layer put on the fabric. Some coated fabrics have moisture vapor transmission, but that is limited in the amount of moisture that can be moved through the fabric. Air permeability is the best measurement of moisture control.

**Why Doesn't WeatherMax Sag Like Acrylic?**WeatherMax is made with filament yarns; it is elastic and recovers completely after stress to the fabric is removed. On the other hand, fabrics made of spun yarns such as acrylics, have little elasticity and will stretch under stress but will not recover completely, therefore producing the unsightly effect of sagging.

**Why Doesn't WeatherMax Crack Like Coated Fabrics? How Do You Check for Crack Resistance?**We measure WeatherMax cracking resistance by folding the fabric on itself and putting it in a deep freezer at -45°F for 5 days. It is then removed, unfolded and inspected for any cracks or breakdown at the fold. After such difficult testing as mentioned above, many coated fabrics will show cracks and discoloration of the coating, whereas WeatherMax remains unchanged. Also, some coated materials are degraded by saltwater, however, WeatherMax has been proven to be unaffected.

**Have You Tested Against WeatherMax In Direct Sunlight For Color and Fade Comparison? Where? How Long?**

WeatherMax has been tested in the South Florida Everglades with year round constant exposure to the elements and the color has resisted as well as you would expect of acrylic fabrics.

**How Does the Strength of WeatherMax Compare To Acrylic Over Time?**

WeatherMax has been tested in the South Florida Everglades with a year round constant exposure to the elements as well as maximum UV exposure, and the color & strength retention have been proven comparable to that of acrylic fabrics, a breakthrough in modified polymer technology. We have also run accelerated UV testing in our certified labs, and the results prove that WeatherMax at 1500 hours (equal to 5 years outdoors) exposure matches acrylics on fabric strength and color retention. WeatherMax has twice the strength retention of typical marine solution-dyed polyester.

## Care and Cleaning

**Can You Clean WeatherMax With Bleach Or Will It Hurt the Color Or DWR Treatment?**

You can clean WeatherMax with a solution of 50% bleach and 50% water and it will not damage the color or the DWR finish.

**How Do You Remove Sewing Machine Oil From WeatherMax?**

We have found that Pull Out 2™, available from American Niagara Company, has proven to be the best method for removing oil spots from WeatherMax without leaving stains or spots behind. For best results, Pull Out 2 requires two applications. To find out more, contact ANC, or your WeatherMax distributor.

# Fabrication

## **Does WeatherMax Cut Well With a Hot Knife?**

WeatherMax cuts well with many different tools. Hot knives and laser cutting systems are the most efficient. WeatherMax can be heat sealed, using hot air or a wedge welder. It can be welded by itself or using a heat sensitive tape if needed.

## **Is a Fabrication Manual Available?**

We do offer a WeatherMax Fabrication Manual available for download here. The fabrication manual has been designed as a reference, focusing on the techniques found to be the most practiced and most efficient methods for WeatherMax fabrication.

## **Is WeatherMax Heat Sealable?**

WeatherMax 80 can be sealed using most welding equipment (hot air, wedge, ultrasonic) with the exception of radio frequency. WeatherMax FR acts in much the same manner, except that it can be sealed using radio frequency equipment. Manufacturer's specifications are available upon request. It is our experience that trial and error is the best method in developing a good seal.

## **Is There a Special Type of Tape For Heat Sealing WeatherMax?**

No, when sealing WeatherMax, we have seen the best results with FR bonding tape, but some fabricators seal WeatherMax without tape at all. At this time, we do not offer a tape specifically for heat sealing WeatherMax.

## **Can You Print and Apply Graphics To WeatherMax?**

WeatherMax lends itself to most graphic techniques, such as heat applied vinyl, paint, screen printing, dye sublimation, and digital printing. If after reviewing these FAQ's, you find that your question was left unaddressed, feel free to contact us by clicking here. Please allow 72 hours for a response by email or phone.

