

**CHALLENGE  
AIRCLOTH**



Leading the Way in  
Sustainable Development







- 4 Marblehead Recycled
- 6 Warp-Drive
- 8 Newport All Purpose  
Newport Low Aspect  
Newport Pro Radial
- 10 Newport Black  
Newport Tall Ships
- 12 Newport Colors  
Newport Classic
- 14 Fastnet
- 16 Atlantic
- 17 OD-Tec
- 18 Fibermax
- 20 Super Series Nylon



- 22 Laminates
- 24 Palma Carbon
- 26 Palma
- 28 Palma-Tec
- 30 Palma Pro
- 32 Super Series GP
- 34 Formula Ultra
- 36 XRP Race
- 38 Baltic
- 39 Code-Tec

- 40 Sun-Tec
- 41 Accessories
- 43 Application Charts

## Sustainable Textiles and Laminates

Products in our catalog with this logo contain some or all of the sustainable textile trifecta!

Please enquire with your Challenge sales team for more specifics.



### Recycled Fabric

Challenge's Marblehead Eco woven Dacron sailcloth is the world's only sailcloth fabric made with 100% recycled fiber. Constructed with rPET fiber which has equal properties to the virgin polyesters used in other sailcloth. In our laminate sailcloth fabrics we also use rPET fiber in the taffeta's, and in the polyester warp inserts. Challenge is the clear leader in this arena, having gone much further than anyone else and incorporating recycled materials across a wide range of products throughout our line. Challenge is using rPET fibers and taffetas in the vast majority of its laminated products.



### Non-Toxic Adhesive

Our performance materials are laminated into composite fabrics using our proprietary adhesive, which does not contain toxic solvents or VOC's (Volatile Organic Compounds). Other's laminate with solvent-based adhesives which are typically over 50% solvents by weight, which then need to be evacuated and are released into the atmosphere using energy-intensive drying ovens. Others may claim to be 'carbon neutral' by buying carbon-offsets after polluting; Challenge has taken the progressive step of eliminating harmful chemicals from the start and using recycled materials instead of greenwashing "off-sets".



### Recycled Film

The proprietary Challenge RUV™ PET film is 100% recycled and 97% UV resistant. Challenge RUV™. Challenge is using this film in the vast majority its laminated products. In testing RUV™ film is always equal or superior to the virgin PET films others are using.

## Understanding bluesign® Certification

Products in this catalog with the bluesign® logo are made in a bluesign® certified facility.

In a significant stride towards sustainable excellence, Challenge Sailcloth's Thailand facility proudly announces its bluesign® certification. This esteemed recognition reaffirms the company's unwavering commitment to environmentally responsible practices and the highest standards of sustainability within the sailcloth industry.



*bluesign® certification, an internationally recognized standard for sustainable textile production, represents the pinnacle of responsible manufacturing within the textile industry. bluesign® employs stringent criteria and audits to ensure that the entire textile supply chain adheres to the highest standards of sustainability, safety, and resource efficiency.*

### The bluesign® Criteria

bluesign® certification is rooted in a comprehensive set of criteria that encompass key aspects of sustainable textile production. These criteria are designed to minimize the environmental impact of the textile industry while prioritizing the well-being of workers and consumers. Some core aspects of the bluesign® criteria include:

#### ■ Resource Productivity

bluesign® places a strong emphasis on resource efficiency, including reduced water usage, energy consumption, and the responsible use of chemicals.

#### ■ Consumer Safety

Ensuring that textiles are free from harmful substances and comply with stringent safety standards to protect consumers.

#### ■ Worker Health & Safety

Prioritizing the well-being of workers by assessing and minimizing exposure to hazardous substances and fostering safe working conditions.

#### ■ Environmental Impact

Addressing the environmental impact of textile production by reducing emissions, waste, and the use of hazardous chemicals.



## Super Premium Woven Sailcloth



### Marblehead

As boat design has evolved and rigs have modernized it has become obvious that new constructions are needed to suit today's boats and cruising applications. Marblehead REC and the Newport line maintain the same technology and philosophy of our proven and trusted Marblehead LA and HA materials. What matters most for a strong and durable sailcloth is the number of yarn crossings. In a woven fabric the yarns pass over the first fiber and curve under the next, 'locking' them into each other. It is these yarn crossings, or 'Interlockings™', which resist shape distortion. Challenge developed Fiber 104 with the sole intention of creating a fabric with the most fiber interlockings as a result of the extremely high yarn and fabric shrinkage. When Fiber 104 is woven in both directions of a sailcloth, it leads to a sail that relies on the strength of a tight, dense weave, rather than short-term chemical finishes. This Interlock technology was created for Marblehead and it is now used in the Newport and Marblehead Recycled line.

### Marblehead Recycled



Marblehead REC is the world's first sailcloth made from fully recycled fiber. After a comprehensive search of materials across the globe, and a lot of testing, Challenge has developed a proprietary recycled polyester that has equal properties to virgin fiber and Fiber 104, which has not been possible in the past. This allows us to launch Marblehead REC with full confidence in terms of performance, durability and UV resistance. There is little excuse now not to use recycled sailcloth in polyester/Dacron cruising sails. Challenge is offering these leading-edge recycled fabrics at the same price point as virgin polyester wovens. At Challenge we believe that real sustainability is using recycled materials, not just purchasing carbon offsets to claim green credentials. This is a breakthrough in woven sailcloth.

Fabric ID	Description	Recycled % of Fiber	Yarn Denier		Fabric Width	
			Warp	Fill	in	cm
<b>D6.47 REC</b>	6.47 Marblehead REC	100%	250	400	54	137
<b>D7.47 REC</b>	7.47 Marblehead REC	100%	300	500	54	137
<b>D8.47 REC</b>	8.47 Marblehead REC	100%	300	720	54	137
<b>D9.47 REC</b>	9.47 Marblehead REC	100%	300	940	54	137





# Warp-Drive



## Premium Radial Sailcloth



Challenge's Warp-Drive woven Dacrons are the highest performing Dacron materials available on the market today.

Warp-Drive styles are the best choice for sailors who desire the performance of a laminate, but want the durability of a woven. Warp-Drive styles have much lower stretch in the warp direction and therefore in a radial configuration have better shape holding ability than traditional crosscut Dacron sails. But unlike laminates, they will not mildew, delaminate or crack over time. Radial sails will last as long as a traditional crosscut sail.

Warp drive dacron is harder to manufacture and has not been available since the start of the pandemic. Therefore, we are very excited about re-launching these styles. These materials suit performance cruising and club racing customers who demand performance, but are not a good fit for a laminate or membrane sails.

These styles are made using Challenge's patented process for weaving straight warp yarns in heavy fabrics. The specialized construction removes fill crimp during weaving and encapsulate the very straight load bearing warp yarns.

- Warp-Drive styles are all made with very low crimp for ultimate performance.
- The perfect balance between Price, Performance, and Durability.
- The only true warp Dacron material on the market today.
- Excellent option for both performance cruisers and Club Racers.
- Attractive price point.

Fabric ID	Description	Warp DPI	Fabric Width	
			in	cm
<b>D4.11WD</b>	4.11 Warp-Drive Race	19,000	54	137
<b>D6.1WD</b>	6.1 Warp-Drive Race	27,000	54	137
<b>D7.4WD</b>	7.4 Warp-Drive Race	27,000	54	137
<b>D8.75WD</b>	8.75 Warp-Drive Race	33,600	54	137



# Newport



## Premium Woven Sailcloth



### Newport All Purpose

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
D5.45	5.45 Newport All Purpose	200	350	54	137
D5.93	5.93 Newport All Purpose	150	350	54	137
D6.45	6.45 Newport All Purpose	220	440	54	137
D7.45	7.45 Newport All Purpose	275	500	54	137
D7.95	7.95 Newport All Purpose	275	750	54	137
D8.45	8.45 Newport All Purpose	350	840	54	137
D9.45	9.45 Newport All Purpose	350	1000	54	137
D10.95	10.95 Newport All Purpose	440	1300	54	137
D12.95	12.95 Newport All Purpose	500	1800	54	137

### Newport Low Aspect

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
D4.93	4.93 Newport Low Aspect	150	250	54	137
D5.53	5.53 Newport Low Aspect	250	300	54	137
D6.53	6.53 Newport Low Aspect	250	370	54	137
D7.03	7.03 Newport Low Aspect	250	420	54	137
D8.03	8.03 Newport Low Aspect	300	500	54	137
D9.03	9.03 Newport Low Aspect	300	700	54	137
D10.53	10.53 Newport Low Aspect	350	840	54	137
D11.93	11.93 Newport Low Aspect	500	1300	54	137

### Newport Pro Radial

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
D5.1	5.1 Newport Pro Radial	150	250	54	137
D6.1	6.1 Newport Pro Radial	250	350	54	137
D7.1	7.1 Newport Pro Radial	350	440	54	137
D8.1	8.1 Newport Pro Radial	440	520	54	137
D9.1	9.1 Newport Pro Radial	500	750	54	137
D10.1	10.1 Newport Pro Radial, <b>Please mind application chart</b>	600	840	54	137



# Newport



## Premium Woven Sailcloth



### Newport Pro Radial Black

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
<b>D6.1BK</b>	6.1 Newport Pro Radial Black	250	350	54	137
<b>D7.1BK</b>	7.1 Newport Pro Radial Black	350	440	54	137
<b>D8.1BK</b>	8.1 Newport Pro Radial Black	440	520	54	137
<b>D9.1BK</b>	9.1 Newport Pro Radial Black	500	750	54	137
<b>D10.1BK</b>	10.1 Newport Pro Radial Black, <b>Please mind application chart</b>	600	840	54	137

### Fastnet Black

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
<b>D6.68BK</b>	6.68 Fastnet Black	250	400	54	137
<b>D7.38BK</b>	7.38 Fastnet Black	300	500	54	137
<b>D7.88BK</b>	7.88 Fastnet Black	500	650	54	137
<b>D8.88BK</b>	8.88 Fastnet Black	500	750	54	137
<b>D9.88BK</b>	9.88 Fastnet Black	500	840	54	137
<b>D10.88BK</b>	10.88 Fastnet Black	500	1000	54	137

### Newport Tall Ships

Designed for demanding large yachts, each Newport Tall Ships construction is woven with tough 1000d warp fibers and rugged fill fibers. This combination gives excellent tearing strength as well as UV and Abrasion Resistance. The standard finish has a softer hand feel specifically designed for ease of sail handling. Challenge also has a wide variety of custom produced Tall Ships styles that have been made for special projects. Please inquire about custom styles for unique boats.

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
<b>D12.8</b>	12.8 Newport Tall Ships	1000	1500	54	137

*The Black Pearl is the largest sailing yacht ever built.  
The sails are made with 100% Newport Black fabric.*



# Newport



## Premium Woven Sailcloth



### Newport Colors

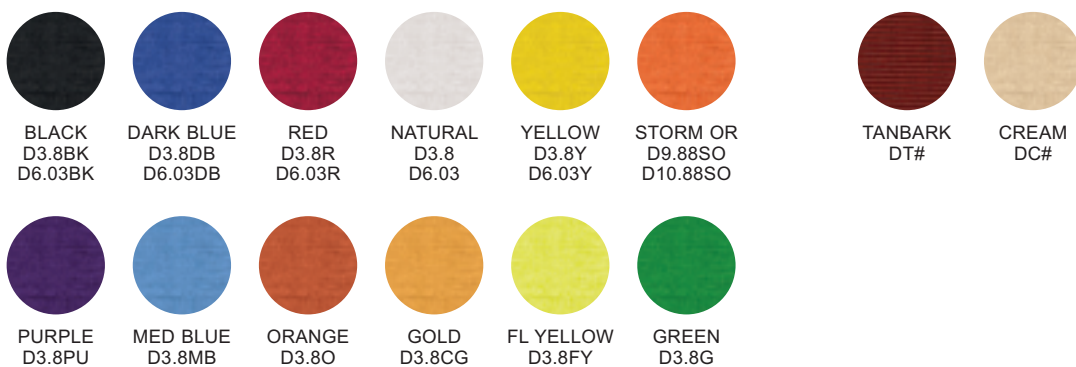
Challenge is the world leader of dyed woven sailcloth. The premium constructions use high tenacity yarns and high mass fiber technologies. Autoclave dyeing with high pressure and heat produce vibrant and long lasting colors. Custom colors can be matched to Pantone shades with 1000 yard MOQs.

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
<b>D3.8</b>	3.8 Newport, Natural	150	250	60	152
<b>D3.8</b>	3.8 Newport, Colors	150	250	60	152
<b>D6.03</b>	6.03 Newport, Natural	250	400	60	152
<b>D6.03</b>	6.03 Newport, Colors	250	400	60	152
<b>D9.88SO</b>	9.88 Newport, Storm Orange	500	840	54	137
<b>D10.88SO</b>	10.88 Newport, Storm Orange	500	1000	54	137

### Newport Classic

Newport Classic styles are the same great fibers and constructions used across the product line. Designed specifically for classic yachts, the rich Tanbark and Cream colors are achieved using an autoclave dyeing process with high pressure and heat. They are one of the foundations in the yachting industry, and demand a very high standard of quality which few have been able to achieve. As a result of the difficult nature of producing these colors, please inquire about special orders with longer lead times.

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
<b>DT / DC3.8</b>	3.8 Tanbark or Cream	150	250	60	152
<b>DT / DC5.53</b>	5.53 Tanbark or Cream	250	300	54	137
<b>DT / DC6.68</b>	6.68 Tanbark or Cream	250	400	60	152
<b>DT / DC7.88</b>	7.88 Tanbark or Cream	500	650	54	137
<b>DT / DC8.88</b>	8.88 Tanbark or Cream	500	750	54	137
<b>DT / DC9.88</b>	9.88 Tanbark or Cream	500	840	54	137







## Leading Offshore & Voyage Sailcloth



Challenge Fastnet is the most durable offshore cruising style available. Fastnet is the 2018 upgrade of Challenge's successful High Mass Fiber Weaves product line. The result of 15 years of development, Fastnet combines all of the technology and lessons learned from the past six Clipper Around the World Races. Unlike a professional race, Clipper Around the World is crewed by ambitious amateurs. The sail must perform and last through multiple oceans, without professional maintenance crews or paid sailors. Challenge Sailcloth has supplied Clipper for two decades, and is excited to launch Fastnet to allow sailors who need bulletproof durability and UV resistance! Fastnet achieves the high level of durability and UV resistance by using massive high tenacity warp fibers. The low aspect constructions and High Mass Fiber Technology are the most efficient and cost effective way of extending a sail life.

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
<b>D6.68</b>	6.68 Fastnet	250	400	54	137
<b>D7.38</b>	7.38 Fastnet	300	500	54	137
<b>D7.88</b>	7.88 Fastnet	500	650	54	137
<b>D8.88</b>	8.88 Fastnet	500	750	54	137
<b>D9.88</b>	9.88 Fastnet	500	840	54	137
<b>D10.88</b>	10.88 Fastnet	500	1000	54	137
<b>D11.88</b>	11.88 Fastnet	500	1300	54	137





# Atlantic



## Premium Cruising Fabric



Atlantic styles are tightly woven constructions using high tenacity yarns. Challenge sought to develop a new cruising style utilizing a medium firm stabilized finish for durable cruising sails. High production volumes ensure consistency and low cost for a high value product line.

Fabric ID	Description	Yarn Denier		Fabric Width	
		Warp	Fill	in	cm
<b>D4.38</b>	4.38 Atlantic	150	250	54	137
<b>D5.38</b>	5.38 Atlantic	250	300	54	137
<b>D6.38</b>	6.38 Atlantic	250	400	54	137
<b>D7.48</b>	7.48 Atlantic	300	500	54	137
<b>D8.38</b>	8.38 Atlantic	300	750	54	137
<b>D9.38</b>	9.38 Atlantic	440	840	54	137
<b>D10.38</b>	10.38 Atlantic	440	1000	54	137

# OD-Tec



## Innovative Light Weight Dacron One Design Fabrics



Challenge is excited to announce OD-Tec, our newest line of new One Design fabrics designed to challenge the long term status quo in dingy racing sailcloth. Specifically conceived as the next generation of OD materials with a woven structure designed with our superior coating technology in mind. Challenge has developed this unique new range of fabrics to meet not only performance requirements for high level racing, but also to vastly improve durability of the sails. OD-Tec uses high tenacity fibers and proprietary immersion coating chemistry to make a high performance but durable OD sail fabric which has low stretch, superior tear strength and the ability to withstand flogging and abuse on the start line without having the coating white out after a couple regattas.

- OD-Tec fabrics are firm bias, low crimp, and low stretch.
- Prominent Double-Beam matrix ripstop pattern for rugged durability.
- New immersion-coating technology.
- Proprietary chemistry for high performance and superior durability.
- No coating white-out, excellent adhesion. Probably the best coating durability available.
- OD-Tec has tear and breaking strength not seen to date in light weight Dacron fabrics.
- High tenacity fibers and woven construction developed for Kitesurf and Wing-Foiling fabric technology.

Fabric ID	Description	Bias	Weight		Width	
			SM oz	gsm	in	cm
<b>OD-Tec 2.5</b>	Very light weight crosscut or radial fabric	Medium	3.11	133	60	150
<b>OD-Tec 2.85</b>	Balanced w/crosscut tilt; High strength/weight	Firm	3.40	146	60	150
<b>OD-Tec 3.75</b>	More crosscut oriented than lighter weights	Firm	4.07	174	60	150





# FiberMax



## Super Durable Spinnaker Fabric



Challenge is excited to announce its next generation coated cruising spinnaker fabric. Proven in the Clipper Cup Around the World Race, spinnakers made of FiberMax were used without replacement. All but one person on the many boats are amateurs, so the chutes are used and abused over and over again. No spinnaker cloth but Challenge has been used on the Clipper Cup sails for the last 20 years.

- Coated finish for easy cutting on vacuum tables.
- High tenacity nylon fibers provide excellent breaking and tear strength, and abrasion resistance.
- Very tight weave, dense constructions.
- Durable coating has excellent adhesion, with no crazing or white-out common on lesser fabrics.
- Firm finish provides low stretch and high performance for big boat or dinghy racing.
- Dyed bright white finish offers superior UV resistance to natural.
- Flourecent colors are special order.
- Fabric width is 60" / 150 cm.



Fabric ID	Product	Style	Weight		Construction	Colors
			SM oz	gsm		
<b>N-FS44</b>	Fibermax 44	0.75 oz	1.08	46	30 x 40	All
<b>N-FS64</b>	Fibermax 64	1.5 oz	1.63	69	70 x 70	All
<b>N-FS94</b>	Fibermax 94	2.2 oz	2.61	117	140 x 140	W, R, B



# Super Series Nylon



## Grand Prix Race Nylon



Challenge is proud to announce our new Super Series Nylon range. As with all products under the Challenge Super Series line, this is a Grand Prix race product. Designed and manufactured without compromise to produce the best product available in its category.

Super Series uses special high tenacity nylon fibers for low stretch, high abrasion resistance, and highest breaking strength in class. Higher breaking strength is critical because allows for a stiffer coating chemistry to be used while maintaining good tear resistance for the finished product.

Challenge's propriety and superior coating chemistry provides unmatched tear strength, superb durability, dimensional stability, and a silky-smooth surface identical from side to side. Due to excellent coating adhesion the Super Series Nylons show no signs of crazing or white out as they age.

In the grand prix race nylon category, there has been a single dominant product for the last 25 years. Many have tried to compete with this product over the years without success. Our Super Series Nylon makes the grade both and terms of the look and feel of the material, and the test results are also identical.

As per normal from Challenge, you will find a very competitive price for this new High-End product. In these times when supply of certain sailcloth fabrics remains restricted, and raw material and staffing constraints make it hard to produce fabrics to consistent quality standards, we believe there is place in the market for an additional supplier for high-end, sophisticated race Nylon. Challenge's industry leading supply change allows us to offer it at an attractive price, and a very consistent quality.

The current available style is Super Series 75 (SS75), the most universally used spinnaker style/weight. The full range will be available in 2024.

- Coated finish for easy cutting on vacuum tables.
- High tenacity nylon fibers provide excellent breaking and tear strength, and abrasion resistance.
- Very tight weave, dense constructions.
- Durable coating has excellent adhesion, with no crazing or white-out common on lesser fabrics.
- Firm finish provides low stretch and high performance for big boat or dinghy racing.
- Dyed bright white finish offers superior UV resistance to natural.
- Fluorescent colors are special order.
- Fabric width is 60" / 150 cm.

Fabric ID	Product	Weight		Construction	Colors
		SM oz	gsm		
<b>NEL33</b>	Elite33	0.83	35	30 x 30	W
<b>SS75</b>	Super Series 75	0.93	40	30 x 30	Red, White, Blue
<b>SS90</b>	Super Series 90	1.1	47	30 x 40	Coming in 2024
<b>SS150</b>	Super Series 150	1.65	71	70 x 70	Coming in 2024
<b>SS250</b>	Super Series 250	2.96	127	140 x 140	Coming in 2024
<b>SS350</b>	Super Series 350	3.5	150	210 x 210	Coming in 2024

*Sails made with  
custom laminate  
base materials  
from Challenge.*

# LAMINAT





# ES

## Baltic

**IMPROVED:** Our well known, high value, CZ race line is improved this year with the addition of UPE Fiber.

## XRP Race

This very popular mid-market line continues to offer the best value for money of any film based warp insert laminate.

## XRP Ultra Aramid

**IMPROVED:** The range is expanded to six styles for 2024, to cover a wider range of racing boats up to 45' LOA.

## Formula Ultra

**NEW:** New sophisticated three-layer laminate designed for very high-performance dingy applications with the OD catamarans in mind. Durable and high modulus.

## Super Series GP

Our new line of high-end race laminates designed for the most demanding clients and applications. No compromise, just the best race laminate available today.

## Palma Pro

**NEW:** Our new grey taffeta version of the original 100% polyester XRP Race. Same fiber content, same DPI steps, same value for money performance with the added durability of external taffetas.

## Palma

Introduced in 2022 Palma is an all-white cruising fabric made with polyester and UPE fiber.

## Palma-Tec

The renamed XRP CL UPE from last year, also made with polyester and UPE fiber using black fiber.

## Palma Carbon

**NEW:** New sophisticated high performance UPE/Carbon cruising laminate combining our Code-Tec technology with our expertise in adhesives and warp insert construction. Two separate warp insert layers using small denier fibers either side of X insert core make this product unique and leading edge, and very tough. Our global reach and supply chain allow us to offer this super robust material at a killer price point. Talk to your Challenge Sailcloth rep to learn more, or stop by our stand at METS.



# Palma Carbon



## Carbon Cruise Laminates



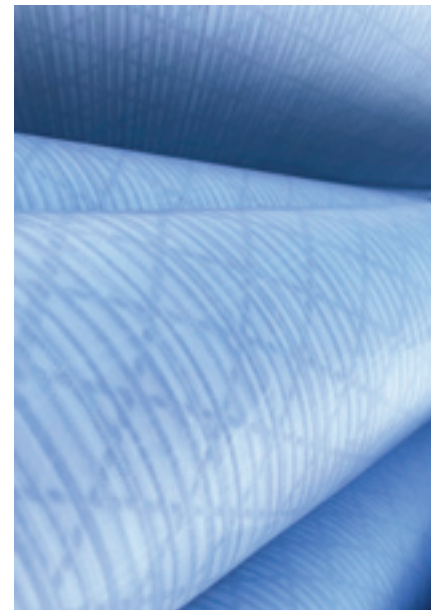
**NEW**

Based on our popular and highly successful Palma cruise laminate line, Challenge announces a new high modulus (low stretch) Palma laminate utilizing Carbon fiber blended with UPE (UHMWPE) fiber for larger modern performance-oriented cruising boats. Specifically designed for modern cruising boats and sailors who are interested in performance and good sail shape while enjoying their leisure time on the water. Cruisers like to go fast as well!

Carbon fiber is the least stretchy of all the high performance fibers, and therefore the fiber of choice for performance racing sailboats. While carbon is an inherently brittle fiber, Challenge combines it with UPE to balance modulus and strength. This provides the durability required for cruising. UPE is the most durable of all the modern high modulus fibers, exhibiting low stretch, UV stability, high flexibility, and best in class resistance to tear and abrasion. Making it an excellent fiber for performance cruising applications, and when combined with carbon the result is a high performance sail able to carry high loads without sail shape distortion.

Carbon fiber laminates are not for every client, but can be appropriate for more modern higher performance boats that want the best shaped sails, when combined with the right amount of UPE fiber. They are less durable sails than those made of polyester and UPE only. As always, careful consideration of the needs of the client and of the type of sailing he/she does should be made to match our fabrics with the right clients.

The exterior taffeta on our Palma Carbon line is our highly successful and durable Code-Tec 135. As with all other products in the Palma line, Palma Carbon uses 100% recycled polyester fiber in the exterior taffeta and recycled polyester film. Challenge uses a proprietary adhesive system that contains no PFAS's or solvents to bond all the materials together. Our adhesive system also leads the industry in both adhesion and weathering.



- Five styles with increasing density of warp fiber inserts.
- Blended UPE and carbon fiber warp yarns.
- A great option for boats in the 60' to 75' that don't want/need membrane sails.
- Polyester Code-Tec taffeta for better abrasion and UV resistance.
- Lowest stretch cruising fabric.
- Reasonable durability.
- Recycled film and polyester taffeta.
- No solvents or PFAS chemicals.

Fabric ID	Insert DPI		Taffeta	Film	Weight		Width	
	Total	X 50°/1.5"			SM oz	gsm	in	cm
<b>Palma Carbon 20</b>	21,200	1,000	250	1.00	11.88	509	60	150
<b>Palma Carbon 27</b>	27,000	1,000	250	1.25	12.30	527	60	150



## Ultra PE Enhanced Cruising Laminates



### All styles now UPE reinforced!

Our new Palma Cruise Laminate line are cutting edge, UPE enhanced fabrics specifically designed for modern cruising boats and sailors who are interested in performance and good sail shape while enjoying their leisure time on the water. Cruisers like to go fast as well!

UPE is short for UHMWPE, which is an acronym for the chemical name of branded fibers like Spectra and Dyneema. UPE is a high modulus fiber like aramid (Kevlar) and carbon fiber. This means the fiber is very low stretch, which is important for good shaping holding, the key to boat speed. But unlike Aramid and carbon, UPE fiber is very tough and durable. It is exceptional in UV (much better than Dacron), hydrophobic (does not absorb water), and all but impossible to cut or tear, making it the perfect high modulus fiber for cruising sailcloth. The result is a high performance sail able to carry high loads without sail shape distortion, and at the same time being extremely durable and long lasting.

Environmentally, Palma sets the standard by which all other laminate sailcloth will be judged. 100% recycled polyester fiber and recycled film. Challenge uses a proprietary adhesive system that contains no PFAS's or solvents to bond all the materials together. Our adhesive system also leads the industry in both adhesion and weathering. At Challenge we focus on maximizing the use of recycled materials, eliminating forever chemicals, and building the most sustainable products.

- Five styles with increasing density of warp fiber inserts.
- Polyester taffetas on both sides, which increase in weight on the heavier styles, for better abrasion and UV resistance.
- Low stretch.
- High durability.
- High percentage of re-cycled materials
- No solvents or PFAS chemicals

Fabric ID	Insert DPI		Taffeta White	Film	Weight		Width	
	Total	X 45°/1.5"			SM oz	gsm	in	cm
<b>Palma 6</b>	6,000	1,000	Light	1.00	5.86	251	60	150
<b>Palma 9</b>	9,000	1,000	Light	1.00	6.47	277	60	150
<b>Palma 13</b>	12,000	1,000	Medium	1.25	7.94	340	60	150
<b>Palma 18</b>	18,000	1,000	Medium	1.25	9.80	420	60	150
<b>Palma 24</b>	24,000	1,000	Medium	1.50	10.50	450	60	150



# Palma-Tec



## Ultra PE Enhanced Cruising Laminates



### All styles now UPE reinforced!

These modern cruise laminates use all inlaid fiber without scrims for highest performance and efficiency. Sandwiched between taffetas, they are soft and strong with tremendous lamination adhesion for excellent durability. Using large and tough black polyester high tenacity fibers in several directions, they both handle off angle loads and are untearable.

- The combination of black fibers between white taffetas produces a light grey color.
- All styles are available with increasing density of warp fiber inserts.
- Special UV resistant recycled film is used.
- Both sides are bonded with polyester taffetas which increase in density on the heavier styles, for better abrasion and UV resistance.



Fabric ID	Insert DPI		Taffeta	Film	Weight		Width	
	Total	X 60°/75"			White	SM oz	gsm	in
<b>Palma-Tec 6</b>	6,000	1,000	Light	1.00	6.21	266	60	150
<b>Palma-Tec 9</b>	9,000	1,000	Light	1.00	6.51	279	60	150
<b>Palma-Tec 13</b>	12,000	1,000	Medium	1.50	8.17	350	60	150
<b>Palma-Tec 18</b>	18,000	1,000	Medium	1.50	9.39	402	60	150
<b>Palma-Tec 24</b>	24,000	1,000	Medium	1.50	10.09	432	60	150

\* All fiber is black.





# Palma Pro



## Grey Taffeta Full Polyester Laminate



**NEW**

The new Palma Pro Cruise Laminate line is an update of our original very popular Palma line with 100% polyester fiber. Envisioned primarily for the OEM market, but also appropriate for small and medium sized modern cruising boats up to 45' LOA. Palma Pro employs medium weight 150d taffetas for good durability and abrasion resistance. High tenacity polyester fiber in a laminate construction provides better performance/ stretch resistance than woven Darcon sailcloth. Grey taffeta provides a modern performance cruise aesthetic.

Environmentally, Palma Pro sets the standard by which all other laminate sailcloth will be judged. 100% recycled taffeta, polyester fiber and recycled film. Challenge uses a proprietary adhesive system that contains no PFAS's or solvents to bond all the materials together. Our adhesive system also leads the industry in both adhesion and weathering. At Challenge we focus on maximizing the use of recycled materials, eliminating forever chemicals, and building the most sustainable products.

- Three styles with increasing density of warp fiber inserts.
- Polyester taffetas on both sides for better abrasion and UV resistance.
- Better performance and stretch resistance than woven Dacron.
- Good durability.
- High percentage of re-cycled materials.
- No solvents or PFAS chemicals.

Fabric ID	Insert DPI		Taffeta Cool Grey	Film	Weight		Width	
	Total	X 45°/1.5"			SM oz	gsm	in	cm
<b>Palma Pro 13</b>	13,000	1,000	Medium	1.50	7.86	337	60	150
<b>Palma Pro 18</b>	18,000	1,000	Medium	2.00	9.23	395	60	150
<b>Palma Pro 24</b>	24,000	1,000	Medium	2.00	10.52	451	60	150



# Super Series GP



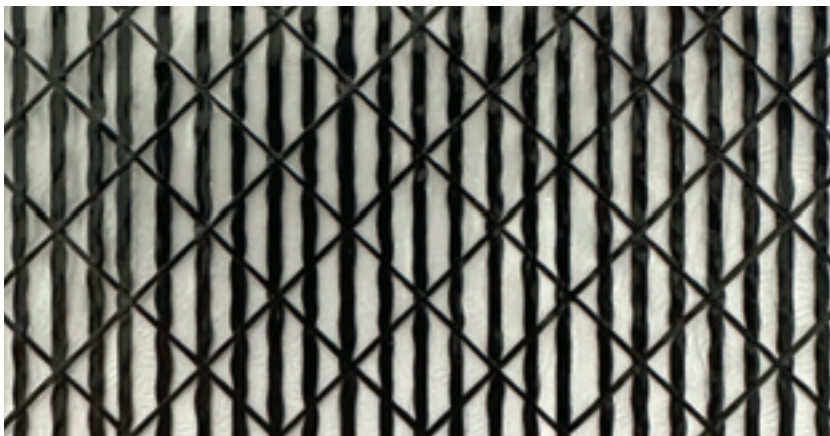
## Ultra-Light Grand Prix Race and Code Zero



**NEW**

Super Series GP is a new line of Challenge high-end Aramid race fabrics designed for the most demanding clients and applications. The only consideration when designing this line is that it would be the best material in its category, designed for light, high-modulus Code Sails across a range of boat types and sizes, and additionally for up-wind sails on boats below 50 feet LOA.

Since the advent of the membrane sail era some 15 years ago, laminate sails became a product that most sailmakers considered low-end, as it was thought that “serious” racers would spend more money on the latest and greatest membrane or string product. Certain sailcloth suppliers even went into the string sail business. At this point development of laminate sailcloth basically stopped. If you look through sailcloth catalogs today, the materials available are the same that were available a decade ago. However, we can all see clearly now the limitations of membrane sails, so there is a clear need for improvement in laminated racing sailcloth.



- The lightest components for each weight and DPI stage. No cost cutting, or compromises made. Just the best product possible from existing materials.
- Less film weight, because of our extensive use .25 mil films, and the changing of film gauge at each DPI step. Mylar film while a necessary component is basically parasitic weight because it doesn't add to performance. The less weight in film and adhesive, the better the performance to weight ratio of the material.
- Better fiber coverage across the surface of the laminate by extensive use of smaller denier fibers. The more fiber in a sail, the higher the performance of the laminate.
- Straighter filaments are a feature of smaller denier fibers, which means more even loading and better stretch resistance.
- The better modulus/weight ratio of Super Series GP means more performance at a reduced weight compared to other available materials.
- While at the same time adhering to the Challenge ethos of having the most competitive price points, for equal or better preference.

Fabric ID	Insert DPI		Film	Weight		Width	
	Aramid Warp	X 45°/.5"		SM oz	gsm	in	cm
<b>Super Series GP 04</b>	4,800	200	0.50	1.6	70	60	150
<b>Super Series GP 06</b>	7,600	200	0.50	1.8	78	60	150
<b>Super Series GP 09</b>	9,600	200	1.0	2.7	117	60	150
<b>Super Series GP 12</b>	12,000	200	1.25	3.5	151	60	150
<b>Super Series GP 18</b>	18,000	500	1.5	4.5	195	60	150
<b>Super Series GP 24</b>	24,000	500	1.5	5.1	221	60	150



# Formula Ultra



## Ultra-Light Race Laminates for Multi-Hulls



**NEW**

Formula Ultra is Challenge’s new multi-hull specific line of laminate fabrics developed from our Super Series GP high-end race fabrics. These styles were designed for the most demanding clients and performance applications, and are both the lightest and the highest modulus (least stretch) materials at any given fabric weight and DPI.

Formula Ultra 09 has more fiber than competing products for a similar price point. With thin (small denier) fibers spread evenly across the surface of the laminate and the double layer inlaid X the material is super responsive to the sail controls, and is designed specifically to carry high cunningham without distorting.



- Less film weight, because of our extensive use of .25 mil films, and the changing of film gauge at each DPI step. The less weight in film and adhesive, the better the performance to weight ratio of the material.
- Better fiber coverage across the surface of the laminate by extensive use smaller denier fibers. The more fiber in a sail, the higher the performance of the laminate.
- Straighter filaments are a feature of smaller denier fibers, which means more even loading and better stretch resistance.
- For the Formula Ultra multihull series we use multiple layers of the lightest films and two layers of 200 denier inlaid X UPE fiber on either side of the structural yarns.
- 100% UPE for the warp loading bearing yarns.
- UPE (UHMWPE) is one of the highest modulus fibers available, while at the same time being the most durable. The fiber has high resistance to UV and is nearly impossible to break.

Fabric ID	Insert DPI		Layers	Film	Weight		Width	
	Total	X 45°/1.5"			SM oz	gsm	in	cm
<i>Formula Ultra 09</i>	9,000	200 D x 2	Double UPE x	1.25	3.7	143	60	150

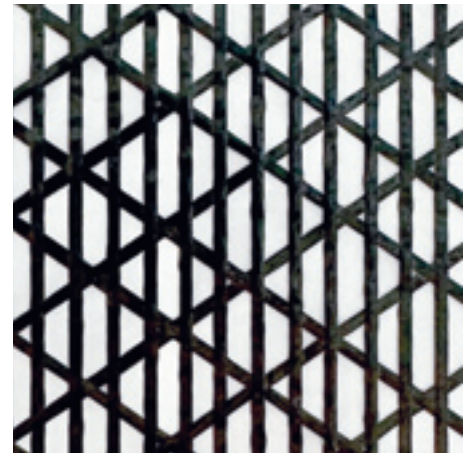
# XRP Race



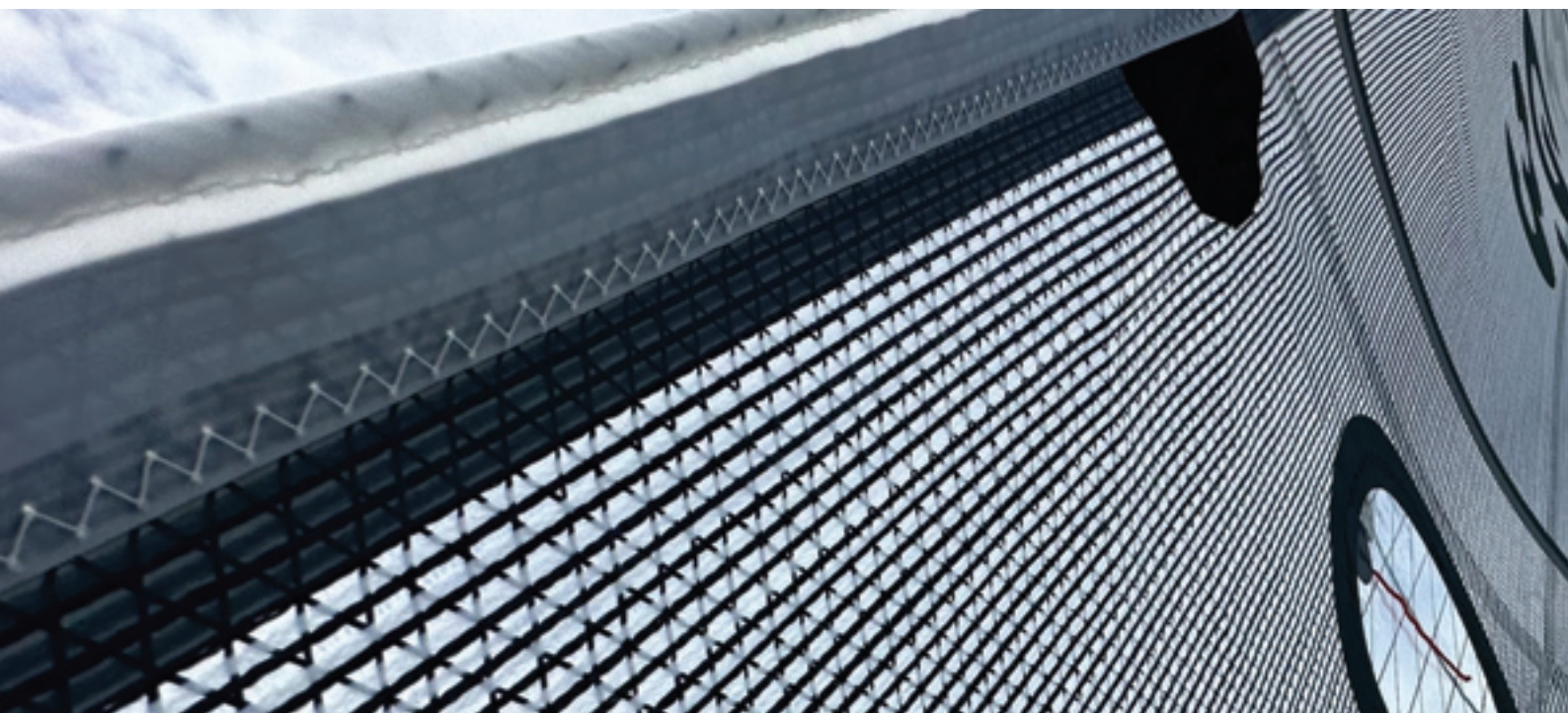
## Race Laminates



These durable and high value sailcloth polyester styles are a great choice for classes that restrict the use of exotic fibers. XRP styles were designed with high strength to weight ratios. They use efficient fiber inlays without square scrim for reduced weight and increased off angle load bearing capacity. XRP uses high tenacity black coated fibers that have good UV and tear resistance. Constructions are black high tenacity polyester warp, substantial bias X inserts, precision laminated. XRP fabrics are perfect for racing and club racing headsails and mainsails, multihull screechers, various reinforcements, and large yacht code zeros.



Fabric ID	Insert DPI		Film	Weight		Width	
	Total	X 60°/.75"		SM oz	gsm	in	cm
<b>XRP6</b>	6,000	3,000	1.50	3.04	130	60	150
<b>XRP9</b>	9,000	3,000	1.50	3.74	160	60	150
<b>XRP13</b>	12,000	3,000	1.50	4.44	190	60	150
<b>XRP18</b>	18,000	3,000	1.50	5.14	220	60	150
<b>XRP24</b>	24,000	3,000	2.00	6.14	263	60	150



# XRP Ultra Aramid



**NEW**

This year we introduce our new high modulus line of XRP for bigger boats and higher load cases that require more sail shape holding ability for your more performance orientated sailors. This line employs 100% high performance warp fibers, both aramid and UPE, for superior stretch resistance which translates to boat speed as the wind and loads increase. The UPE component adds toughness and extra breaking strength over the long haul. All fibers are black across both the polyester and Ultra Aramid lines, hence different materials can be used on the same boat for different sails, or for stepped constructions within individual sails.



Fabric ID	Insert DPI				Film	Weight		Width	
	Total	Aramid	UPE	X 60°/.75"		SM oz	gsm	in	cm
<b><i>XRP Ultra Aramid 6</i></b>	6,000	3,000	3,000	1,000	1.50	3.04	130	60	150
<b><i>XRP Ultra Aramid 10</i></b>	10,000	4,000	6,000	1,000	1.50	3.74	160	60	150
<b><i>XRP Ultra Aramid 15</i></b>	15,000	5,000	10,000	1,000	1.50	5.02	215	60	150
<b><i>XRP Ultra Aramid 19</i></b>	20,000	10,000	10,000	1,000	1.50	5.49	235	60	150
<b><i>XRP Ultra Aramid 25</i></b>	24,000	12,000	12,000	1,000	1.50	6.23	267	60	150



## Code Zero Race Laminates



Baltic Code Zero laminates are ultra-high value performance laminates for code zero racing applications. The Baltic range was designed with light weight taffeta and high modulus aramid and UPE fiber for high performance. Five styles are available to suit a wide range of boats all of which use an efficient 22° inlaid X fiber.

Baltic Code Zero Race is for medium to large racing boats that require both durability and performance. Baltic combines the strength and power of several materials into one durable product at a great price point. It contains precision laminated light weight taffeta and 0.5 mil film with hybrid UPE/aramid warp inserts. Baltic is treated with Ultrafresh anti-mildew.

- Heavier weights now combine UPE with the aramid fiber for increased durability and toughness.
- All fibers are black for a consistent look and feel.



Fabric ID	Description	Insert DPI		Taffeta Color	Film	Weight		Width	
		Warp	X 22°/1.5"			SM oz	gsm	in	cm
<b>Baltic2A</b>	Baltic 2 CZ Aramid	2,000	1,000	Grey	0.50	2.57	110	60	150
<b>Baltic4A</b>	Baltic 4 CZ Aramid	4,000	1,000	Grey	0.50	2.76	118	60	150
<b>Baltic8A</b>	Baltic 8 CZ Aramid	8,000	1,000	Grey	0.50	3.6	155	60	150
<b>Baltic12A</b>	Baltic 12 CZ Aramid	12,000	1,000	Grey	0.50	4.0	180	60	150

**PLEASE NOTE WE HAVE CHANGED BALTIC STYLES NAMES TO MATCH THE DPI GOING FORWARD**



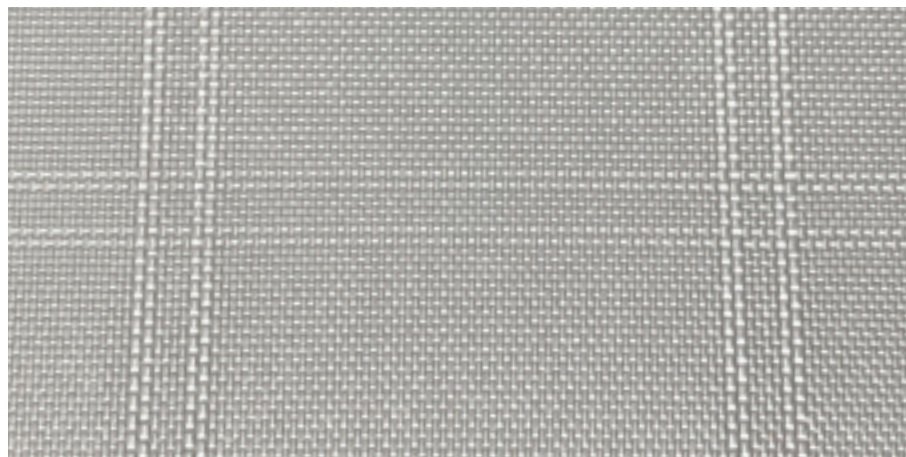
# Code-Tec



## Innovative Code Sail & Gennaker Fabric



Challenge is excited to announce Code-Tec, a series of new fabrics specifically designed for the new generation of asymmetric and reaching sails used on modern racing and cruising designs. As off-the-wind sails designed for tighter sailing angles continue to evolve with the new structured luff and cableless Code sail designs, Challenge has developed this unique new range of fabrics to meet the performance requirements for this new generation of sails. Code-Tec uses high tenacity fibers and proprietary immersion coating chemistry to make a high performance but durable Code sail fabric which boasts low stretch, high tear strength and the ability to withstand repeated furls on modern roller furling storage systems. Code-Tec has tear and breaking strength not seen to date in polyester spinnaker fabrics.



- A breakthrough in asymmetric fabric technology.
- Double-beam matrix ripstop pattern for rugged durability.
- Leading edge kitesurf finish, with outstanding adhesion and life performance compared to spinnaker cloth or traditional dacron.
- Code-Tec has tear and breaking strength not seen to date in polyester spinnaker fabrics.
- New immersion-coating technology.
- Proprietary chemistry for high performance and durability.
- Sun-Tec UV roller furling available for UV resistance comparable to much heavier fabrics.

Fabric ID	Insert DPI		Taffeta Color	Film	Weight		Width	
	Warp	X / 1.5"			SM oz	gsm	in	cm
<b>WOVENS</b>								
<b>CODE55P</b>	--	--	White	--	1.2	51	60	150
<b>CODE95P</b>	--	--	White	--	1.9	81	60	150
<b>CODE135P</b>	--	--	White	--	3.1	132	60	150
<b>CODE155P</b>	--	--	White	--	3.4	146	60	150
<b>LAMINATES</b>								
<b>CODEX170</b>	--	1,000 / 45°	White	0.50	3.9	170	60	150
<b>CODE195UPE</b>	6,000	1,000 / 22°	White	0.50	4.5	195	60	150
<b>CODE245UPE</b>	12,000	1,000 / 22°	White	0.50	5.7	245	60	150

*Wovens and laminates will stretch and shrink at different rates as they age. Please consider before using both in the same sail. Grey available but not stocked in all warehouses.*

## Ultra Lite UV Protection for Performance Sails

Challenge is excited to announce Sun-Tec, a new concept in UV roller furling covers. Using high tenacity fibers and an innovative UV coating formula, this is the best fabric to cover the leech panels of Code Zeros, downwind sails, and other roller furling sails. At 133 grams per square meter, Sun-Tec is light enough to fly in light air, but rivals much heavier fabrics in UV resistance and abrasion. Challenge designed Sun-Tec with rugged double beam ripstops in both directions of the cloth, with a sailcloth finish inside for increased stability. Sun-Tec is based on the Code-Tec 135 taffeta, so it has the same feel and strength as Code-Tec asymmetrical fabric, meaning your UV cover will stretch the same as the base sail material, making for smoother transitions between UV cover and the body of the sail.



- High tenacity fibers: excellent breaking, tear strength, UV resistance.
- Coated one side only.
- Sun-Tec coating alone greatly increases life of underlying substrate.
- Sun-Tec provides as good UV protection as other commonly used cover fabrics over twice its weight.

Fabric ID	Description	Weight		Width		Rolls yd
		SM oz	gsm	in	cm	
<b>SUNTEC</b>	Sun-Tec	3.09	133	60	150	50
<b>SUNTECPSA</b>	Sun-Tec PSA	3.30	141	60	150	50

## Insignia & PSA Fabrics

Acrylic based pressure sensitive adhesive fabrics bond aggressively to woven and laminated sailcloth.

Fabric ID	Description	Weight		Width	
		SM oz	gsm	in	cm
<b>IN</b>	Polyester Insignia Fabric	3.3	141	56.75	144
<b>IUV*</b>	TiO2 Coated Polyester Taffeta with PSA	3.5	150	60	150

\* Available in USA warehouse only. \*\* Special order. Please inquire.



# Accessories



## Ultra Patch and Reinforcement



### Ultra Patch

Fabric ID	Description	Weight		Width	
		SM oz	gsm	in	cm
<b>UPE100GPSA</b>	Ultra100 PSA Grey (Storm Grey)			60	150
<b>UPE400W</b>	Ultra400 White			60	150
<b>UPE400BK</b>	Ultra400 Black			60	150
<b>UPE800W</b>	Ultra800 White			60	150
<b>UPE800BK</b>	Ultra800 Black			60	150

### Ultra Tapes

Fabric ID	Description	Weight		Width	
		SM oz	gsm	in	cm
<b>UPE400 Tapes</b>	Tapes slit to 4" and 5"				
<b>UPE800 Tapes</b>	Tapes slit to 4" and 5"				
<b>Custom Tapes</b>	Tapes in all sizes custom order				

### Window

Fabric ID	Description	Weight		Width	
		SM oz	gsm	in	cm
<b>CHWIN</b>	4 mil clear RUV film / UPE Ultra inserts	3.9	167	60	150
<b>MW150B</b>	4 mil clear RUV film / 22° 1000D black poly	4.0	171	60	150

### Challenge RBC

Challenge RBC is single-ply woven polyester with environmentally friendly C0 DWR (no fluorocarbons) on the outside, and a water-resistant PU coating on the inside. Each yard contains over 10 recycled plastic water bottles, and saves about one pound of carbon emissions compared to nylon bag cloth.

Fabric ID	Description	Weight		Width	
		SM oz	gsm	in	cm
<b>RBC450RS</b>	Recycled Sail Bag Fabric	5.4	220	58	147

\* Stocked in German warehouse, other colors available from USA or by special order.





## Laminate Applications

Boat	Sail	XRP	XRP UA	Palma / Palma-Tec	Palma Pro
20 – 25	Main	6 / 9		6 / 9	6 / 9
	LT #1				
	#1	6		6	6
	#2	6 / 9		6 / 9	6 / 9
25 – 30	Main	9 / 13	10	9 / 13	9 / 13
	LT #1	6	6	6	6
	#1	6 / 9	6 / 10	6 / 9	6 / 9
	#2	9 / 13	10	9 / 13	9 / 13
30 – 35	Main	13 / 18	15 / 19	13 / 18	13 / 18
	LT #1	6 / 9	6 / 10	6 / 9	6 / 9
	#1	6 / 9	6 / 10	9 / 13	6 / 9
	#2	13 / 18	15	13 / 18	13 / 18
35 – 40	Main	18 / 24	19 / 25	18 / 24	18 / 24
	LT #1	9	10	9	9
	#1	13 / 18	15	13 / 18	13 / 18
	#2	18 / 24	15 / 19	18 / 24	18 / 24
40 – 45	Main	24	19 / 25	24	24
	LT #1	13		13	13
	#1	18	15	18	18
	#2	24	19	24	24
45 – 50	Main		25		
	LT #1		15		
	#1		15 / 19		
	#2		19		
50 – 55	Main				
	LT #1		15		
	#1		15 / 19		
	#2				
	#3				

## Reaching Applications

Boat	Code-Tec	Baltic	FiberMax – Down Wind
20 – 25	55P		44 / 64
25 – 30	55P / 95P	2A	44 / 64
30 – 35	55P / 95P / 135P / 155P	2A	44 / 64
35 – 40	95P / 135P / 155P	2A	44 / 64
40 – 45	95P / 135P / 155P	2A / 4A	44 / 64 / 94
45 – 50	135P / 155P	2A / 4A / 8A	64 / 94
50 – 55	155P	4A / 8A	64 / 94
55 – 60		8A	64 / 94

APPLICATION CHARTS FOR MONOHULL ONLY. FOR MULTIHULL APPLICATIONS ADD 10-15 FEET.

## Dacron Applications

Boat	Sail	Marblehead REC	Newport AP	Newport LA
10 – 15	Main			4.93
	LT #1			4.93
	#1			
	#2			
15 – 20	Main		5.45 / 5.93	4.93 / 5.53
	LT #1		5.93	4.93
	#1			
	#2		5.45 / 5.93	4.93 / 5.53
20 – 25	Main	6.47	5.93 / 6.45	6.53
	LT #1	6.47	6.45	
	#1			4.93
	#2	6.47	5.45 / 5.93 / 6.45	5.53
25 – 30	Main	6.47 / 7.47	5.93 / 6.45 / 7.45	6.53 / 7.03
	LT #1			
	#1	6.47	5.45 / 5.93 / 6.45	4.93 / 5.53
	#2	6.47	5.45 / 6.45	5.53 / 6.53
30 – 35	Main	7.47	7.45	7.03 / 8.03
	LT #1		5.45	4.93 / 5.53
	#1	6.47	6.45	5.53 / 6.53
	#2	6.47 / 7.47	6.45 / 7.45	6.53 / 7.03
35 – 40	Main	8.47	7.95 / 8.45	8.03 / 9.03
	LT #1		5.45 / 5.93	5.53
	#1	7.47	5.45 / 6.45 / 7.45	5.53 / 6.53
	#2	7.47 / 8.47	7.45 / 7.95 / 8.45	6.53 / 7.03 / 8.03
40 – 45	Main	9.47	8.45 / 9.45 / 10.95	9.03
	LT #1	6.47 / 7.47	5.45 / 6.45 / 7.45	5.53 / 6.53
	#1	7.47 / 8.47	6.45 / 7.45 / 7.95	6.53 / 7.03
	#2	8.47	7.95 / 8.45	7.03 / 8.03 / 9.03
45 – 50	Main	9.47	9.45 / 10.95	9.03 / 10.53
	LT #1	7.47	6.45 / 7.45	6.53 / 7.03
	#1	7.47 / 8.47 / 9.47	7.45 / 7.95 / 8.45 / 9.45	7.03 / 8.03 / 9.03
	#2	9.47	8.45 / 9.45 / 10.95	7.03 / 8.03 / 9.03
50 – 55	Main	9.47	9.45 / 10.95	11.93
	LT #1	7.47	7.45	7.03 / 8.03
	#1	7.95 / 8.45 / 9.45	8.03 / 9.03 / 10.95	
	#2	9.47	9.45 / 10.95	10.53 / 11.93
55 – 60	Main		12.95	11.93
	LT #1	8.47	7.95 / 8.45	8.03
	#1	9.47	8.45 / 9.45 / 10.95	9.03 / 10.53 / 11.93
	#2		10.95 / 12.95	11.93
60 – 70	Main		12.95	
	LT #1		9.45 / 10.95	9.03
	#1		10.95	10.53 / 11.93
	#2		10.95 / 12.95	11.93
	#3		12.95	

APPLICATION CHARTS FOR MONOHULL ONLY. FOR MULTIHULL APPLICATIONS ADD 10-15 FEET.

## Radial Dacron Applications

Boat	Sail	Fastnet	Atlantic	Warp Drive	Newport PR
10 – 15	Main		3.8 / 4.38	4.11	5.1
	LT #1			4.11	
	#1		3.8 / 4.38		
	#2				
15 – 20	Main		4.38 / 5.38		6.1
	LT #1			4.11	5.1
	#1		3.8 / 4.38		
	#2		4.38 / 5.38		
20 – 25	Main	6.68	5.38 / 6.38	6.1	6.1
	LT #1	6.68			5.1
	#1	6.68	3.8 / 4.38 / 5.38		5.1
	#2	6.68	5.38 / 6.38	6.1	5.1
	#3		6.38	6.1	6.1
25 – 30	Main	7.38	6.38 / 7.48	6.1 / 8.75	6.1 / 7.1
	LT #1				5.1
	#1	6.68	5.38 / 6.38		
	#2	6.68 / 7.38	6.38	6.1 / 8.75	6.1
	#3	6.68 / 7.38	6.38 / 7.48	6.1 / 8.75	7.1
30 – 35	Main	7.38 / 7.8	7.48 / 8.38	8.75	7.1 / 8.1
	LT #1		5.38 / 6.38		5.1
	#1	6.68	6.38 / 7.48	6.1	6.1
	#2	6.68	6.38 / 7.48 / 8.38	6.1 / 8.75	7.1
	#3	7.38 / 7.88	7.48 / 8.38	8.75	8.1
35 – 40	Main	7.88 / 8.88 / 9.88	8.38 / 9.38 / 10.38	8.75	8.1 / 9.1 / 10.1
	LT #1	6.68	6.38 / 7.48	6.1	6.1
	#1	6.68 / 7.38	7.48 / 8.38	6.1 / 8.75	7.1 / 8.1
	#2	7.38 / 7.88 / 8.88	7.48 / 8.38 / 9.38	8.75	8.1 / 9.1
	#3	7.88, 8.88	8.38 / 9.38 / 10.38	8.75	9.1 / 10.1
40 – 45	Main	9.88 / 10.88	8.38 / 9.38 / 10.38	8.75	
	LT #1	6.68	6.38	6.1	6.1
	#1	7.38 / 7.88 / 8.88	6.38 / 7.48 / 8.38 / 9.38	8.75	7.1 / 8.1 / 9.1 / 10.1
	#2	7.88 / 8.88 / 9.88	8.38 / 9.38	8.75	9.1 / 10.1
	#3	8.88 / 9.88 / 10.88	9.38 / 10.38	8.75	
45 – 50	Main	10.88 / 11.88	10.38	8.75	
	LT #1	7.38 / 7.88	7.48	6.1	6.1 / 7.1
	#1	7.88 / 8.88 / 9.88	8.38 / 9.38 / 10.38	8.75	8.1 / 9.1
	#2	8.88 / 9.88 / 10.88	9.38 / 10.38		10.1
	#3	10.88 / 11.88	10.38		
50 – 55	Main	11.88	10.38		
	LT #1	7.38, 7.88	7.48 / 8.38	6.1 / 8.75	8.1
	#1	7.88 / 8.88 / 9.88	8.38 / 9.38 / 10.38	8.75	9.1
	#2	9.88	10.38		10.1
	#3	11.88	10.38		
55 – 60	Main	11.88 / 13.88			
	LT #1	7.88 / 8.88	7.48 / 8.38	8.75	8.1 / 9.1
	#1	8.88 / 9.88 / 10.88	9.38 / 10.38		10.1
	#2	10.88 / 11.88			
	#3	11.88 / 13.88			
60 – 70	Main	13.88 / 15.88			
	LT #1	8.88 / 9.88	9.38		9.1
	#1	10.88 / 11.88 / 13.88	9.38 / 10.38		10.1
	#2	11.88 / 13.88			
	#3	13.88 / 15.88			

APPLICATION CHARTS FOR MONOHULL ONLY. FOR MULTIHULL APPLICATIONS ADD 10-15 FEET.



**Challenge Sailcloth, Inc.**

560 Nutmeg Road North  
South Windsor, CT 06074, USA  
T: 860-871-8030, 800-962-4499  
F: 860-872-0881  
us@challengesailcloth.com

**Challenge Sailcloth West**

711 West 17th Street, E-4  
Costa Mesa, CA 92627, USA  
T: 949-722-7448, 800-423-6750  
F: 949-722-2961  
uswest@challengesailcloth.com

**Challenge Sailcloth Europe**

Lorient, Brittany, France  
ched@challengesailcloth.com  
M: +33 (0)6 9839 1010  
Orders to German warehouse:  
europe@challengesailcloth.com

**FRANCE**

**Soromap Yachting**  
contact@vmgsoromap.com

**GREECE**

**Kokkotas Ltd.**  
sales@kokkotas.gr

**ITALY**

**Sacloma srl**  
sacloma@sacloma.com  
**Boat Rigging srl**  
luca@boatrigging.it

**NORWAY**

**Lorentzen & Lorentzen AS**  
post@lorentzen.no

**UNITED KINGDOM**

**Kayospruce, Ltd**  
kayospruce@sailcloth.co.uk

*This catalog  
is printed  
on recycled  
paper.*

