ECOPAK™

2023 Outdoor Fabric Guide

THE ONLY 100% RECYCLED
TECHNICAL PACK FABRIC IN THE WORLD!

CHALLENGE AILCLOTH
560 Nutmeg Road North
South Windsor, CT 06074
860-871-8070
challenge-outdoor.com

Components	Weight	Tear Strength ASTM D2261	Waterproof psi / bar	Abrasion ASTM 3884	Width

EPLX | BLUE OCEAN: 100% recycled polyester components, C0 DWR (no fluorocarbons), waterproof 0.5 mil RUV matte film backing, recyclable after use. Challenge's proprietary RUV matte film is more abrasion resistant, wrinkles less, and is 97% UV resistant.

EPLX200	*Good choice for a waterproof liner; for small/light packs, add reinforcement for bar-tacks and daisy chain webbing.*					
	C0 DWR, 200d face, 45° Blue CrossPly, 0.5 mil matte film	4.3 oz/yd² 145.8 gsm	Warp: 21.2 lb Fill: 17.2 lb	200+ 13.8+	500 cycles	56 in 142 cm
EPLX200RS	*Lightweight performance of 200d, plus Ripstop to improve tear strength.*					
	C0 DWR, 200d Ripstop face, 45° Blue CrossPly, 0.5 mil matte film	4.8 oz/yd² 164 gsm	Warp: 22.8 lb Fill: 19.7 lb	200+ 13.8+	300 cycles	56 in 142 cm
EPLX400	*With much better abrasion resistance than 420d nylon, well suited for bags with or without a liner.*					
	C0 DWR, 400d face, 45° Blue CrossPly, 0.5 mil matte film	6.9 oz/yd² 235 gsm	Warp: 34.4 lb Fill: 26.7 lb	200+ 13.8+	3,000 cycles	56 in 142 cm
EPLX450RS	*For a more technical look, the 450d has a 3 mm (1/8") ripstop grid. Very good stitch-holding and durability.*					
	C0 DWR, 450d Ripstop face, 45° Blue CrossPly, 0.5 mil matte film	7.6 oz/yd² 257.6 gsm	Warp: 36.7 lb Fill: 28.3 lb	200+ 13.8+	1,500 cycles	56 in 142 cm
EPLX600 RE/COR	*Now with 600d recycled CORDURA polyester face fabric, and improved tear strength and abrasion resistance.*					
	C0 DWR, 600d face, 45° Blue CrossPly, 0.5 mil matte film	9.75 oz/yd² 332 gsm	Warp: 38.8 lb Fill: 41.1 lb	200+ 13.8+	3,000 cycles	56 in 142 cm
EPLX840	*The look, feel, and durability of Ballistic nylon, in 100% recycled polyester.*					
	C0 DWR, 840d Ballistic face, 45° Blue CrossPly, 0.5 mil matte film	9.85 oz/yd² 334 gsm	Warp: 51.3 lb Fill: 49.5 lb	200+ 13.8+	4,400 cycles	56 in 142 cm
EPLX1680	*The ultimate in durability for bag bottoms and other areas of high abrasion.*					
	C0 DWR, 1680d Ballistic face, 45° Blue CrossPly, 0.5 mil matte film	12.3 oz/yd² 416.9 gsm	Warp: 114.1 lb Fill: 107.3 lb	200+ 13.8+	10,200 cycles	56 in 142 cm

EPX | GREEN MOUNTAIN: 100% recycled polyester components, C0 DWR (no fluorocarbons), 70d Ripstop backing, recyclable after use. Compared to traditional pack fabric with 50d plain weave backing, the 70d Ripstop has better stitch holding and superior tear strength.

EPX70RS	*For small packs/accessories or lining fabric; for more durable bottom, use heavier style.*					
	C0 DWR, 70d Ripstop face, 45° Blue CrossPly, 70d ripstop backing	5.05 oz/yd² 171 gsm	Warp: 17.8 lb Fill: 14.1 lb	200+ 13.8+	300 cycles	56 in 142 cm
EPX200	*Our most popular style -- All-around performance in 22 colors!*					
	C0 DWR, 200d face, 45° Blue CrossPly, 70d ripstop backing	5.9 oz/yd² 200.1 gsm	Warp: 26.7 lb Fill: 24.8 lb	200+ 13.8+	500 cycles	56 in 142 cm
EPX400	*Better abrasion resistance than 420d nylon for larger packs, duffels and bottoms of EPX200 packs as needed.*					
	C0 DWR, 400d face, 45° Blue CrossPly, 70d ripstop backing	8.95 oz/yd² 304 gsm	Warp: 37.8 lb Fill: 33.8 lb	200+ 13.8+	3,000 cycles	56 in 142 cm
EPX600	*A tight weave, textured yarn gives EPX600 a supple hand, and comparable durability and abrasion resistance of 500d Cordura®.*					
	C0 DWR, 600d face, 45° Blue CrossPly, 70d ripstop backing	9.97 oz/yd² 338 gsm	Warp: 42.6 lb Fill: 39.7 lb	200+ 13.8+	2,000 cycles	56 in 142 cm

HYBRID: new and recycled components.

EPX 70HH	*Hybrid blend of 70d recycled polyester and nylon in Charcoal Heather with abrasion resistant coating.*					
Liquid Crystal Polymer, 70d face, 45° Blue CrossPly, 70d ripstop backing	5.25 oz/yd² 178 gsm	Warp: 17.8 lb Fill: 14.1 lb	200+ 13.8+	1,000 cycles	56 in 142 cm
EPX 240 Denim	*The look and feel of your favorite jeans, made specially for packs and bags in a waterproof and abrasion resistant construction!*					
240d recycled polyester/nylon face, 45° Blue CrossPly, 70d ripstop backing	9.9 oz/yd² 336 gsm	Warp: 37.7 lb Fill: 36.0 lb	200+ 13.8+	3,000 cycles	56 in 142 cm
EPX 400HH	*Tightly woven blend of recycled polyester and nylon, with abrasion resistant coating.*					
Liquid Crystal Polymer, 400d face, 45° Blue CrossPly, 70d ripstop backing	9.15 oz/yd² 310 gsm	Warp: 37.8 lb Fill: 33.8 lb	200+ 13.8+	15,000 cycles	56 in 142 cm
EPLX 600 MultiCam®	*Official MultiCam® pattern in polyester with same look, feel and durability as the 500d Cordura® MultiCam®*					
C6 DWR, 600d face, 45° Black CrossPly, 0.5 mil RUV film backing	8.85 oz/yd² 300 gsm	Warp: 38.4 lb Fill: 30.7 lb	200+ 13.8+	2,000 cycles	56 in 142 cm

ULTRA: Ultra fiber (non-branded Dyneema®) blended with polyester.

ULTRA TNT DS	*Ultralight tent/tarp laminated fabric with Ultra Warp and CrossPly yarn reinforcement in Desert Sage Green.*					
0.25 mil film, Ultra Warp insert and 45° CrossPly, 0.25 mil film backing	0.94 oz/yd² 32 gsm	does not tear		200+ 13.8+	500 cycles	60 in 152 cm
ULTRA TX50	*Light, waterproof All-White polyester laminate especially for small bags/accessories; perfect for Dye-Sublimation printing!*					
50d ripstop face, Ultra 45° CrossPly, 0.25 mil film backing	2.4 oz/yd² 82 gsm	does not tear		200+ 13.8+	500 cycles	59 in 150 cm
ULTRA TX70	*Similar to TX50, but with 70d Silver recycled ripstop, and Black Ultra CrossPly instead of white.*					
70d recycled ripstop face, Ultra 45° CrossPly, 0.25 mil film backing	2.9 oz/yd² 98 gsm	does not tear		200+ 13.8+	500 cycles	59 in 150 cm
ULTRA 100	*Our lightest Ultra pack fabric with twice the tear strength and abrasion resistance of 500d/8oz CORDURA.*					
100d face, 0.5 mil RUV film backing	2.92 oz/yd² 99 gsm	Warp: 69.4 lb Fill: 89.6 lb		200+ 13.8+	3,600 cycles	58 in 147 cm
ULTRA 200	*At just 3.5oz, Ultra200 exceeds the technical properties of any similar weight fabric on Planet Earth!*					
200d face, 0.5 mil RUV film backing	3.5 oz/yd² 119 gsm	Warp: 103.1 lb Fill: 133.2 lb		200+ 13.8+	4,400 cycles	58 in 147 cm
ULTRA 200TX	*The technical properties of Ultra200, plus a CrossPly yarn and ripstop backing for improved durability and stitch-holding.*					
200d Ultra/polyester face, 0.5 mil RUV film, Ultra 45° CrossPly, polyester ripstop backing	5.9 oz/yd² 200 gsm	Warp: 103.1 lb Fill: 133.2 lb		200+ 13.8+	4,400 cycles	58 in 147 cm
ULTRA 400	*Great for Ultra200 pack bottoms, or in the whole pack for high-load applications like Hunting packs.*					
400d face, 0.5 mil RUV film backing	4.85 oz/yd² 165 gsm	Warp: 114.5 lb Fill: 117.6 lb		200+ 13.8+	8,800 cycles	58 in 147 cm
ULTRA 400TX	*The technical properties of Ultra400, plus a CrossPly yarn and ripstop backing for improved durability and stitch-holding.*					
400d Ultra/polyester face, 0.5 mil RUV film, Ultra 45° CrossPly, polyester ripstop backing	7.2 oz/yd² 244 gsm	Warp: 148 lb Fill: 162 lb		200+ 13.8+	8,800 cycles	58 in 147 cm
ULTRA 800	*The ultimate in strength and durability for large packs and duffels.*					
800d face, 0.5 mil RUV film backing	8.5 oz/yd² 288 gsm	Warp: 250+ lb Fill: 250+ lb		200+ 13.8+	16,000+ cycles	58 in 147 cm
ULTRA 800TX	*The technical properties of Ultra800, plus a CrossPly yarn and ripstop backing for improved durability and stitch-holding.*					
800d Ultra/polyester face, 0.5 mil RUV film, Ultra 45° CrossPly, polyester ripstop backing	10.85 oz/yd² 367 gsm	Warp: 250+ lb Fill: 250+ lb		200+ 13.8+	16,000+ cycles	58 in 147 cm
ULTRA Grid	*The world's first recycled nylon grid fabric with double Ultra ripstop – and Bluesign approved!*					
C0 DWR, 210d recycled nylon, double Ultra ripstop, 1500mm PU backing	3.9 oz/yd² 132 gsm	does not tear		2.13 1.47	1,100 cycles	59 in 150 cm
ULTRA Stretch	*Challenge's own 4-way stretch for strong, abrasion resistant pockets and pouches.*					
C0 DWR, Nylon 6.6 blended with Ultra and stretch fiber	5.5 oz/yd² 186 gsm	does not tear		no	3,000 cycles	44 in 112 cm