2020 FABRIC SPECIFIER'S GUIDE

AIR, TENT & TENSILE STRUCTURES

FABRIC SPECIFICATION TABLES

The Air, Tent & Tensile Structures Fabric Specification Tables list characteristics of materials manufactured and distributed by a number of companies. For fabrics that are manufactured by one company and distributed by another, the manufacturer is listed.

The fabric specification charts are organized according to basic fabric types and their various top coatings or finishes.

PARTICIPATING COMPANIES



Alnet Americas Inc. www.alnetamericas.com



Chukoh www.chukoh.com

Denka

Denka www.denka.co.jp



Gale Pacific www.galecommercial.com

sunbrella Glen Raven Custom Fabrics LLC

www.glenraven.com



Herculite Products Inc. www.herculite.com



Heytex USA Corp. A Heytex Group Company www.heytex.com



Hiraoka & Co. Ltd. www.tarpo-hiraoka.com



Low & Bonar www.mehgies.com



Marlen Textiles www.marlentextiles.com



The Miami Corporation www.miamicorp.com



Polyfab USA LLC www.polyfabusa.com



www.weathermax.com



Saint-Gobain Performance Plastics www.sheerfill.com



Seaman Corporation www.seamancorp.com



Sefar www.sefar.com



Serge Ferrari www.sergeferrari.com



Snyder Mfg. Inc. www.snyderman.com



Verseidag US www.verseidagus.com

All specifications included in the table were submitted voluntarily by the companies, and their accuracy is the responsibility of the manufacturer.

The appearance of a listing in the table is not an endorsement of a company or product by Fabric Architecture magazine or the Industrial Fabrics Association International (IFAI). Fabric Architecture and IFAI encourage readers to contact the companies directly for additional information.

	PRODUCT	Acoustic Mesh			Acrylic, So	lution Dyed			ECTFE Film	Expanded P	TFE (ePTFE)
Recom	nmended Uses	Acoustic treatment – ceilings & walls Interior only	Tents	Tents	Awning, Marine	Marine	Awning, Commercial	Vertical Shades		Tension tents, pole tents, clearspans, tensile structures	Tension tents, pole tents, clearspans, tensile structures
Trade N	Name of Fabric	Alphalia Silent AW	Sunbrella	Sunbrella Plus	Tempotest	Tempotest Coated	Starlight FR	Starscreeen	TERKA	Sefar Architecture TENARA Fabric 4T40 HF	Sefar Architecture TENARA Fabric 4T20 HF
Trademark H	older/Supplier	Serge Ferrari sergeferrari.com/us	Glen Raven Custom Fabrics LLC derraven.com sunbrella.com	Glen Raven Custom Fabrics LLC glenraven.com surbrella.com	Miami Corp/Pará miami corp.com	Miami Corp/Parà miamicorp.com	Miami Corp/Para miamicorp.com	Miami Corp/Parà miamicorp.com	Denka denka.co.jp	SEFAR sefar.com	SEFAR sefar.com
9	Weight		9.0 oz/yd²		8.8 cz/yd² (+/- 5%)	> 9.7 oz/yd² (+/- 5%)	8.8 oz/yd² (+/- 5%)	6.49 oz/yd² (+/- 5%)	12.39 oz/yd² (250µm)		
Base Fabric	Weave Style	Precontraint* – Basket weave	Plain	Plain						Plain 1/1	Plain 1/1
	Yarn Count (Warp, Fill)	High tenacity polyester	76, 36 tp i	76, 36 tpi						Fluoropolymer	Fluo ro polymer
j	Weight (Top, Bottom)	127 oz/yd²		Yes							
Coating	UV Topcoat Material	Acrylic								Fluoropolymer	Fluoropolymer
	UV Topcoat Weight										
L	ife Expectancy	20 years	10+ years	5+ years					20-30 years	25+ years	25+ years
Warr	ranty, Duration	10 years interior	10 years, limited	5 years	10 years					15 years	15 years
	Test Method		ASTM D3776	ASTM 03776-96						ASTM 04851	ASTM D4851
Finished Fabric	Thickness								0.25 mm	0.55 mm, 0.022 in	0.55 mm, 0.022 in
	Weight	127 oz/yd²	9.0 oz/yd²	10.4 oz/yd²					12.39 oz/yd²	1080 g/m²; 31.9 oz/yd²	1080 g/m²; 31.9 cz/yd²
Roll	Width, Usable	105 in	46, 60 in	60 in	47, 60, 8, 80				47.2 in	1,575 m; 62 in	1.575 m; 62 in
	Warp, Fill		12, 8 lb/in	14, 8 lb/in							
Tongue Tear	Test Method		ASTM 2261-96	ASTM 2261-96							
	Warp, Fill	25, 25 daN								798, 752 N; 179, 169 lb	798, 752 N; 179, 169 lb
Trapezoidal Tear	Test Method	DIN 53.363								ASTM D4851	ASTM D4851
Grab Tensile	Warp, Fill		286, 180 Lbf	285, 180 Lbf							
	Test Method		ASTM D5034-95	ASTM D5034-95							
StripTensile	Warp, Fill	250, 250 daN/5 cm								4000, 4000 N/5 cm; 456, 456 lb/in	4000, 4000 N/5 cm; 456, 456 lb/in
	Test Method	NF EN ISO 1421								ASTM D4851	ASTM D4851
Adhesion	Warp, Fill										
Aditesion	Test Method										
Hydrostatic	Warp, Fill		45 cm hydros	100 cm hydros						>800 PSI	>800 PSI
Resistance	Test Method		AATCC 127-1998	AATCC 127-1998						ASTM 0751	ASTM D751
Cold Crack	Warp, Fill		Pass	Pass							
CORCUGUR	Test Method		ASTM B751-06	ASTM B751-06							
Buming (Characteristics, Test Method	ASTM E84, CSFM, NFPA 701							ASTM EB4 Class A, ASTM E108, NFPA 701 pass, EN13501B-S1-d0	ASTM E84 Class A, FTM 191A, NFPA 701, UL94 v-o, EN135018-s1, DO, LOI >95%	ASTM E84 Class A, FTM 191A, NFPA 701, UL94 v-o, EN135018-s1, DO, LOI >95%
	Light Values, Test Method		EN410/14500 for a range of colors	EN410/14500 for a range of colors					DIN EN 410	ASTM 903	ASTM 903
Reflectan	Transmission, ce, Absorption		0-24%, 2-81%, 1-98%	0-24%, 2-81%, 1-96%					95%, 4%, 1%	38%, 59%, 3%	19%, 79%, 2%
Seams (Recon	nmended Style)	RF-Overlap	Lap or French hem	Lap or French hem					Гар	Lap	Lap
Constr	uction Method		Heatseal with tape, sew	Heatseal with tape, sew					Thermal weld	HF/RF	HF/RF
UsefulTemp	erature Range	-22~158 F	-40-225 F	-40-225 F						-20F to 125F	-20F to 125F

	PRODUCT	Fibergl	lass Mesh, PTFE	Coated				Fiberglass,	PTFE Coated			
Recom	nmended Uses	Façade/ Building décor	Façade/ Building décor	Façade/ Building décor	Tensile structures	Tensile structures	Tensile structures	Tensile structures	Tensile structures, roofs, facades	Tensile structures, roofs, facades	Tensile structures, roofs, facades	Tensile structures, roofs, facades
Trade I	Name of Fabric	FGF-412-25-1	FGB-412-28	FGJ-412-28	FGT-250-1	FGT-1000	FGT-600	FGT-800	SHEERRILLI	SHEERFILL II	SHEERFILL IIA	SHEERFILLV
Trademark H	older/Supplier	Chukoh Chemical Ind., Ltd. chukohcom	Chukoh Chemical Ind., Ltd. chukoh.com	Chukoh Chemical Ind., Ltd. chukoh.com	Chukoh Chemical Ind., Ltd. chukoh.com	Chukoh Chemical Ind., Ltd. chukohoom	Chukoh Chemical Ind., Ltd. chukoh.com	Chukoh Chemical Ind., Ltd. chukdh.com	Saint-Gobain Performance Plastics sheerfil.com	Saint-Gobain Performance Plastics sheerfil.com	Saint-Gobain Performance Plastics sheerill.com	Saint-Gobain Performance Plastics sheerfil.com
	Weight											
Base Fabric	Weave Style	Mock-leno	Leno	Leno	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain
	Yarn Count (Warp, Fill)											
	Weight (Top, Bottom)								Even both sides	Even both sides	Even both sides	Even both sides
Coating	UV Topcoat Material											
	UV Topcoat Weight											
L	ife Expectancy								20-30 years	20-30 years	20-30 years	20-30 years
Warr	ranty, Duration								Product/project specific	Product/project specific	Product/project specific	Product/project specific
	Test Method								ASTM D4851-88	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88
Finished Fabric	Thickness	0.75 mm	1.1 mm	1.1 mm	0.37 mm	1.0 mm	0.6 mm	0.8 mm	0.036in	0.030in	0.028in	0.022in
	Weight	700±100	680±100	680±100	500±100	1700±170	1000±100	1300±130	45 oz/yd²	38.5 oz/yd²	38 oz/yd²	30 οz/γd ²
Roll	Width, Usable	2800 mm	2700 mm	2700 mm	3800 mm	3800 mm	3800 mm	3800 mm	150 in, 3810 mm	150 in, 3810 mm	150 in, 3810 mm	150 in, 3810 mm
	Warp, Fill											
Tongue Tear	Test Method											
	Warp, Fill								100/100 lbs	75/70 lbs	65/75 lbs	40/60 lbs
Trapezoidal Tear	Test Method								ASTM D4851-88	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88
Grab Tensile	Warp, Fill											
	Test Method											
StripTensile	Warp, Fill	3000/2700 N/3 cm	1680/2250 N/3 cm	1680/2250 N/3 cm	2400/1800 N/3 cm	5500/5000 N/3 cm	3680/2940 N/3 cm	4410/3528 N/3 cm	Minimum values 1025 lb/in (W), 950 lb/in (F)	Minimum values 825 lb/in (W), 600 lb/in (F)	Minimum values 675 lb/in (W), 675 lb/in (F)	Minimum values 550 lb/in (W), 600 lb/in (F)
	Test Method								ASTM D4851-88	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88
Adhesion	Warp, Fill											
Adiresion	Test Method											
Hydrostatic	Warp, Fill											
Resistance	Test Method											
	Warp, Fill											
Cold Crack	Test Method											
Buming (Characteristics, Test Method								A, Flame Spread	ASTM E84 Class A, Flame Spread 5%, Smoke 10%; ASTM E136 Pass; NFPA 701 Pass	ASTM E84 Class A, Flame Spread 5%, Smoke 20%; ASTM E136 Pass; NFPA 701 Pass	ASTM E84 Class A, Flame Spread 0%, Smoke 0%; ASTM E136 Pass; NFPA 701 Pass
	Light Values, Test Method								ASTM E424	ASTM E424	ASTM E424	ASTM E424
Reflectan	Transmission, ce, Absorption				%T 19±5	%T 10±3	%T 15±3	%T 12±3	10%, 73%, 17%	12%, 73%, 15%	16%, 72%, 12%	16%, 74%, 10%
Seams (Recon	nmended Style)								Lap	Lap	Lap	Lap
Constr	uction Method								Thermal weld	Thermal weld	Thermal weld	Thermal weld
UsefulTemp	perature Range								-100-400 F	-100-400 F	-100-400 F	-100-400 F

	PRODUCT				Fiberglass, I	PTFE Coated				Fiberglass, P	TFE Laminated	HDPE
Recon	nmended Uses	Tensile structure liner, acoustical fabric	Tensile structure liner, acoustical fabric	Façades, tensile structures, shade structures	Façades, tensile structures, shade structures	Tensile structures	Tensile structures	Tensile structures	Tensile structures	Tensile structures, roofs, facades	Tensile structures, roofs, facades	Shade Structures, Shade Sails, Wind Breaks, Awnings, Canopies, Tarpaulins, Etc.
Trade I	Name of Fabric	FABRASORB I	FABRASORB IA	SGM-30	SGM-50	Architecture GF-8000 B 18059	Architecture GF-7000 B 18089	Architecture GF-4500 B 18039	Architecture GPM-5000 B 18656	Illuminate 28	Illuminate 48	Extrablock
Trademark H	lolder/Supplier	Saint-Gobain Performance Plastics sheerfill.com	Saint-Gobain Performance Plastics sheerfil.com	Saint-Gobain Performance Plastics sheefill.com	Saint-Gobain Performance Plastics sheefill.com	Verseidag Indutex verseidagus.com	Verseidag Indutex verseidagus.com	Verseidag Indutex verseidaguszom	Verseidag Indutex verseidagus.com	Saint-Gobain Performance Plastics sheerfil.com	Saint-Gobain Performance Plastics sheefill.com	Alnet PTY (CapeTown, South Africa) alnetamericas.com
	Weight					635 g/m²	180 g/m², 5.31 oz/yd²	365 g/m²; 10.77 oz/yd²	500 g/m²; 14.74 oz/yd²			
Base Fabric	Weave Style	Plain	Plain	Mod: Leno	Leno	L 1/1	L 1/1	L 1/1	Mock leno weave	Mock Leno	Leno	Knitted
	Yarn Count (Warp, Fill)					4080 dtex, 4080 dtex	2040 dtex, 2040 dtex	1360 dtex, 1360 dtex	4080 dtex, 4080 dtex			HDPE - 15 stitches per inch Stitch Density 120 Stitches per Inch
	Weight (Top, Bottom)	Even both sides	Even both sides	Even both sides	Even both sides	458, 458 g/ m²: 13.3, 13.3 oz/yd²	355, 355 g/m²: 10.47, 10.47 oz/yd²	218, 218 g/m²; 6.4, 6.4 œ/yd²	170 g/m²; 5.01 oz/yd²	Even both sides	Even both sides	Not Coated
Coating	UV Topcoat Material											Not Coated
	UV Topcoat Weight											Not Coated
L	ife Expectancy	20-30 years	20-30 years	20 years	20 years	20-30 years	20-30 years	20-30 years	20-30 years	20 years	20 years	Over 10 years
War	ranty, Duration	Product/project specific	Product/project specific	Product/project specific	Product/project specific	10 years	10 years	10 years	10 years	Product/project specific	Product/project specific	10 Year Non- prorated
	Test Method	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88					ASTM D4851-88	ASTM D4851-88	produce
Finished Fabric	Thickness	0.014in	0.012 in					0.2 mm; 0.18 in	10 mm; 0.039 in			50.4mil / 1.28 mm
	Weight	14 oz/yd²	10 oz/ydF	21 oz/ydF	16.5 oz/yd²	46 oz/yd²	34 oz/yd²	800 g/m²; 24 oz/yd²	670 g/m²; 19.76 oz/yd²	26 oz/yd²	22 oziyd²	9.6 oz/yd or 325 gsm
Roll	l I Width, Usable	150 in, 3810 mm	150 in, 3810 mm	150 in, 3810 mm	150 in, 3810 mm	480 cm; 189 in	480 cm; 189 in	200 cm; 78 in	300 cm; 118.11 in	54 in, 1400mm	54 in, 1400mm	118 Inches or 3 meters
	Warp, Fill											Warp 33 lbs, Fill 36 lbs
Tongue Tear	Test Method											ASTM D2261
200	Warp, Fill	30/20 lbs	25/20 lbs	100/100 lbs	75/75 lbs	500, 500 N; 112, 112 lb/in	500, 500 N; 112, 112 lb/in	300, 300 N; 67, 67 lb/in	450, 450 N; 39.83, 39.83 Iblin	130/130 lbs	75/75 lbs	Warp 97lbs, Fill 116lbs
Trapezoidal Tear	Test Method	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88					ASTM D4851-88	ASTM D4851-88	ASTM D 5587
Grab Tensile	Warp, Fill											
	Test Method											
StripTensile	Warp, Fill	Minimum values 375 lb/in (W), 300 lb/in (F)	Minimum values 275 lb/in (W), 200 lb/in (F)	Minimum values 675 lb/in (W), 500 lb/in (F)	Minimum values 600i b/in (W), 425 lb/in (F)		580 0, 5800 N/ cm; 662, 662 lb/in	3500, 3500 N/ cm; 400, 400 lb/in	5000, 4500 N/5cm; 548, 514 Ibin	Minimum values 700 lb/in (W), 550 lb/in (F)	Minimum values 600 lb/in (W), 400 lb/in (F)	Warp 278 lbf, Fill 340 LBF
	Test Method	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88	ASTM D4851-88				ASTM D4851	ASTM D4851-88	ASTM D4851-88	ASTM D 5034
Adhesion	Warp, Fill					100 N/cm²; 11.4 lb/in	80 N/cm²; 9.1 Ibrin	60N/cm²; 6.85 lb/in				
Adresion	Test Method					DIN 53357	DIN 53357	DIN 53357				
Hydrostatic	Warp, Fill											
Resistance	Test Method											
	Warp, Fill											
Cold Crack	Test Method											
Buming (Characteristics, Test Method	ASTM E84 Class A, Flame Spread 0%, Smoke 0%; ASTM E136 Pass; NFPA 701 Pass	ASTM E84 Class A, Flame Spread 0%, Smoke 0%; ASTM E136 Pass; NFPA 701 Pass	ASTM E84 Class A, Flame Spread 0%, Smoke 0%; ASTM E136 Pass; NFPA 701 Pass	ASTM E84 Class A, Flame Spread 0%, Smoke 0%; ASTM E136 Pass; NFPA 701 Pass	ASTM E84 E108 and E136; BS 476 parts 3, 5, 6, 7; DIN 4102; NFP 92503 M1; NFPA 701 small	ASTM E84 E108 and E136; BS 476 parts 6, 7; DIN 4102; NFP 92503 M1; NFPA 701 small	ASTM E84 E108 and E136; BS 476 parts 3, 5, 6, 7; NFP 92503 M1; NFPA 701 small scale	DIN 4102 A2	ASTM E84 Class A, Flame Spread 0%, Smoke 10%; ASTM E136 Pass; NFPA 701 Pass	ASTM E84 Class A, Flame Spread 0%, Smoke 10%; ASTM E136 Pass; NFPA 701 Pass	Meets CA 12371 - CSFMT itle 19, NFPA 701 Tested Method 2, ASTM E-84, CAN-ULC S109-14
	Light Values, Test Method	ASTM E424	ASTM E424	ASTM E424	ASTM E424			THE STATE OF THE S	34% translucency at 550 nm; DIN 5036	ASTME424	ASTM E424	UVR, UPF, Shade Factor tested to AS 4174 - All results available upon request
Reflectan	Transmission, ace, Absorption	22%, 71%, 7%	29%, 65%, 6%	34%, 52%, 14%	50%, 40%, 10%					28%, 55%, 17%	48%, 45%, 12%	SRI Varies by color - Available upon request UVR (High = 98%) (Low = 92%) UPF (High = 33) (Low = 13)
Seams (Recon	nmended Style)	Lap	Lap	Lap	Lap					Lap	Lap	Sewing double lock sthich, Can be welded with no tape Hot Air, Wedge, RF
Constr	uction Method	Thermal weld	Thermal weld	Thermal weld	Thermal weld					Thermal weld	Thermal weld	Lock Stitch Knitted
UsefulTemp	perature Range	-100-400 F	-100-400 F	-100-400 F	-100-400 F				-30-70 C	-100–400 F	-100-400 F	-13 Degrees F - +176 Degrees F

	PRODUCT			н	PE					Knitted HDPE		
Recom	nmended Uses	Shade structums, shade sails, tension membranes	Shade structures, shade sails, tension membranes	Shade structures, shade sails, tension membranes	Shade structures, shade sails, tension membranes	Shade structures, shade sails, tension membranes	Shade structures, shade sails, tension membranes	Shade sails, shade structures, tension membranes				
Trade N	Name of Fabric	Architec 400*	Comshade XTRA*	Comtex*	R Comshade*	Parasol™	Polytex ^e	Commercial Heavy 430	Commercial 95	Commercial FR 300	Commercial Heavy 430 FR	Commercial 96 FR
Trademark H	older/Supplier	Polyfab USA LLC polyfabus a.com	Polyfab USA LLC polyfabusa.com	Polyfab USA LLC polyfabusa.com	Polyfab USA LLC polyfabusa.com	Polyfab USA LLC polyfabus a.com	Polyfab USA LLC polyfabusa.com	GALE Pacific USA, Inc. galecommercial.com				
	Weight	12 az/yd²	12 oz/ydF	10 oz/yd²	8.25 oz/ydF	9.6 oz/yd²	7 ozlydP	12.7 oz/yd²	10 oz/ydF	9 oz/yd²	12.7 oz/ydF	10 oz/yd²
Base Fabric	Weave Style	Raschel knit	Raschel knit	Raschel knit	Raschel knit	Raschel knit	Rasch el knit	Monofilament yarn, Raschel knit	Monofilament and tape yarn, Raschel knit	Monofilament and tape yarn, Raschel knit	Monofilament yam, Raschel knit	Monofilament and tape yam, Raschel knit
	Yarn Count (Warp, Fill)							12 gauge	6 gauge	6 дачде	12 gauge	6 gauge
	Weight (Top, Bottom)											
Coating	UV Topcoat Material											
	UV Topcoat Weight											
Ĺ	ife Expectancy	15 years	15 years	10 years	10 years	10 years	10 years	15 years	10 years	10 years	12 years	10 years
Warr	anty, Duration	15 years, limited warranty	15 years, limited warranty	10 years, limited warranty	10 years, limited warranty	10 years, limited warranty	10 years, limited warranty	15 years	10 years	10 years	12 years	10 years
	Test Method											
Finished Fabric	Thickness							0.06 in / 1.6 mm	0.06 in / 1.6 mm		0.06 in / 1.6 mm	0.06 in / 1.6 mm
	Weight							430gsm ± 20	340 gsm ± 20	300 gsm ± 20	430gsm ± 20	340 gsm ± 20
Roll	Width, Usable	3.8 meters; 12-1/2 ft	4 m; 13.1 ft	3.8 meters; 12-1/2 ft	3.8 meters; 12-1/2 ft	3.0 meters; 9.8 feet	3.8 meters; 12-1/2 ft	9 ft 10 in / 3 m				
	Warp, Fill	41.1 lb/38.3 lb	52 lbs / 44 lbs	30.9 lb / 34.4 lb	21.1 lb / 23.9 lb	39 lbs / 49 lbs	16.5 lb/ 24.5 lb	63.6 lbf / 54 lbf	52.2 lbf / 52.2 lbf	48.3 lbf/ 47.0 lbf	55.8 lbf / 48.7 lbf	
Tongue Tear	Test Method	ASTM 02281	ASTM D2261	ASTM D2261	ASTM D751-06	ASTM D751-06	ASTM D2261	ASTM D2261-13	ASTM D2261-13	ASTM D2281-13	ASTM D2261-13	
V41	Warp, Fill											
Trapezoidal Tear	Test Method											
Grab Tensile	Warp, Fill	342 lb / 270 lb	374 lbs / 456 lbs	268 lb / 340 lb	184 lb / 381 lb	231 lbs / 419 lbs	120 lb / 296 lb	370 lbf/ 412 lbf	189.1 lbf/ 452.3 lbf	169.2 lbf / 300.2 lbf	282 lbf/ 362 lbf	
	Test Method	ASTM D5034	ASTM D5034	ASTM D5034	ASTM D5034	ASTM D5034	ASTM D5034	ASTM 05034	ASTM D5034	ASTM D5034	ASTM D5034	
Strip Tensile	Warp, Fill											
	Test Method											
Adhesion	Warp, Fill											
Autresion	Test Method											
Hydrostatic	Warp, Fill											
Resistance	Test Method											
	Warp, Fill											
Cold Crack	Test Method											
Burning C	Characteristics, Test Method	ASTM E84, Class A or I	ASTM E84, Class 8 or II	NFPA-701, AST M E-84	California State Fire Marshal Title 19, NFPA- 701-2015	Per AS/NZS 1530 Part III: Spread of Flame Index=8 (9 max); Smoke Developed=5 (8 max)	NFFA-701, ASTM E-84	ASTM E-84 Class A	ASTM E-84 Class A	NFPA 701, CSFM Title 19 1237.1, ASTM E-84 Class A	NFPA 701, CSFMTitle 19 1237.1, ASTM E-84 Class A	NFPA 701, CSFMTitle 19 1237.1, ASTM E-84 Class A
	Light Values, Test Method	Australian Radiation Protection, Nuclear Safety Agency Ref. 8402-1/ASTM Standard Test Method 2903		Australian Radiation Protection, Nuclear Safety Agency Ref. 8402-1/ASTM Standard Test Method E903	Australian Radiation Protection, Nuclear Safety Agency Ref. 8402-1/ASTM StandardTest Method E90	Australian Radiation	Australian Radiation Protection, Nuclear Sefety Agency Ref. 8402-1/ASTM Standard Test Method E903	AS/NZS 4174:2018	AS/NZS 4174:2018	AS/NZS 4174:2018	AS/NZS 4174:2018	AS/NZS 4174:2018
Reflectan	Transmission, ce, Absorption	Shade Fector/Mean UPF/Solar Reflectance Index (SR) varies by color see website for individual values	UP# Solar Reflectance Index	Shade Factor/Meen UPF/Solar Reflectance Index (SRI) varies by color, see website for individual values	Shade Factor/Mean UPF/Solar Reflectance Index (SRI) varies by color, see website for individual values	Shade Factor/ Mean UPP/Solar Reflectance Index (SRI) varies by color, see web site for individual values	Shade Factor/Mean UPF/ Solar Raffectance Index (SRI) varies by color, see website for individual values	Variable SRI due to color; available upon request	Variable SRI due to color; available upon request	Variable SRI due to color; available upon request	Variable SRI due to color; available upon request	Variable SRI due to color; available upon request
Seams (Recon	nmended Style)	Overlap/fell	Overlapfiell	Overlap/fell	Overlap/feil	Overlap/fell	Overlapfell	Overlap Seam				
Constr	uction Method	Sew with PTFE thread	Sew with PTFE thread	Sew with PTFE thread	Sew with PTFE thread	Sew with PTFE thread	Sew with PTFE thread	Interlocking knit pattern				
UsefulTemp	erature Range	-40-90 C	-40-80 C	-40-80 C	-40-80 C	-40-90 C	-40-80 C	-22 to 155 F				

	PRODUCT	Knitte	d HDPE		ated Polyester, Coated	PES, PV	C-Coated	Poh	yester, Acrylic-Co	ated	Polyester, i	PVC-Coated
Recom	mended Uses	Shade sails, shade structures, tension membranes	Shade sails, shade structures, tension membranes	Facades, Pergolas, Shadesails, Shade Structures, Tensile Structures, Awnings, Tent Side Walls	Facades, Pergolas, Shadesails, Shade Structures, Tensile Structures, Awnings, Tent Side Walls	Tent	Tent	Air structures, pole tents, awnings, canopies	Tents, tensile structures, awnings, canopies	Tents, tensila structures, awnings, canopies	Air structures, tension tents, tensile structures, frame supported structures	Air structures, tension tents, tensile structures, frame supported structures
Trade N	lame of Fabric	Dualshade 350	Dualshade 350 FR	Frontside Print 371	Frontside View 381	Duraskin B 1673	Duraskin B 1515	Odyssey FR	Top Gun FR	Top Gun FR Lite	clipeum 650 H5871	dipeum 900 H5873
Trademark H	older/Supplier	GALE Pacific USA, Inc. galecommercial com	GALE Pacific USA, Inc. galecommercial.com	Serge Ferrari sergeferrari.com/us	Serge Ferrari sergeferrari.com/us	Verseidag Indutex GmbH verseidagus.com	Verseidag Indutex GmbH verseidagus.com	Marien Textiles marientextiles.com	Marlen Textiles marlentextiles.com	Marien Textiles marient extiles.com	HEYtex USA www.heytex.com	HEYtex USA www.heytex.com
	Weight	10.3 cz/yd²	10.3 oz/yd²			180 g/m²; 5.31 oz/yd²	180 g/m²; 5.31 oz/yd²	7.25 oz/yd²	13.0 oz/yd²	8.0 oz/ydF	5 oziya ^p	8 oz/yd²
Base Fabric	Weave Style	Monofilament and tape yarn, Raschel knit	Monofilament and tape yarn, Raschel knit	Precontraint* - BasketWeave	Precontraint ^e – Basket Weave	L I/1	L 1/1	Plain	Plain	Plain	plain 1/1	panama 2/2
	Yarn Count (Warp, Fill)	8 gauge	8 gauge	High Tenacity Polyester	HighTenacity Polyester	1100, 1100 tpi	1100, 1100 tpi				100% Polyester; 1100	100% Polyester; 1100
	Weight (Top, Bottom)			16.5 az/yd²	25 oz/yd²	413 g/m²; 12 oz/yd²	413 g/m²; 12 oz/yd²					
Coating	UV Topcoat Material			Acrylic	Acrylic	Acrylic lacquer	Acrylic lacquer	Acrylic	Acrylic	Acrylic	Premium Acrylic	Premium Aerylic
	UV Topcoat Weight											
L	ife Expectancy	10 years	10 years	15 years	20 years	10-15 years	10-15 years	3-5 years	8-10 years	5-7 years	20+ years	20+ years
Warr	ranty, Duration	10 years	10 years	10 years	10 years			3 years	8 years	5 years	upon request	upon request
	Test Method					DIN 4102 B1, M2	DIN 4102 B1, M2	FED-STD 191A (5041)	FED-STD 191A (5041)	FED-STD 191A (5041)		
Finished Fabric	Thickness	0.07 in / 1.8 mm	0.07 in / 1.8 mm			0.5 mm; 0.2 in	0.5 mm; 0.2 in		0.022 in	0.022 in		
	Weight	350 gsm ± 20	350 gsm ± 20			800 g/m²; 25 oz/yd²	675 g/m²; 22 oz/yd²	245.81 g/m²; 7.25 oz/yd²	13.0 oz/yd²	8.0 oz/ydF	650 g/m² 19 oz/yd²	900 g/m² 27 oz/yd²
Roll	Width, Usable	9 ft 10 in / 3 m	9 ft 10 in / 3 m	105 in	105 in	250 cm; 61, 98 in	250 cm; 61, 98 in	1575 cm; 62 in	62 in	62 in	250 cm, 98 in 300 cm, 118 in	250 cm, 98 in 300 cm, 118 in
	Warp, Fill	64.4 lbf / 49.2 lbf	61.4 lbf / 47.3 lbf					12, 12 lb/in	25, 18 lb/in	12, 10 lb/in	≥ 72/63 lbs	≥ 112/112 lbs
Tongue Tear	Test Method	ASTM D2261-13	ASTM D2261-13			DIN 53363	DIN 53363	FED-STD 191A (5134)	ASTM D2261	ASTM D2261	DIN 53363	DIN 53363
	Warp, Fill					300, 300 N; 67, 67 lb.fin	300, 300 N; 67, 67 lb/in	35, 30 lb/in	74, 34 lb/in	74, 34 lb/in		
Trapezoidal Tear	Test Method					DIN 53363	DIN 53363	FED-STD 191A (5136)	ASTM D4583	ASTM D4533		
Grab Tensile	Warp, Fill	265 lbf/ 321 lbf	196 lbf / 286 lbf			2800, 2500 N/5cm; 320, 285 lb/in	2800, 2500 N/5cm; 320, 285 lb/in	300, 250 lb/in	498, 380 lb/in	275, 220 lb/in		
	Test Method	ASTM D5034	ASTM D5034					Fed-STD 191A (5100)	ASTM D1682	ASTM D1682		
Strip Tensile	Warp, Fill								363, 221 lb/in	363, 221 lb/in	≥ 320/296 lbs/ inch	≥ 457/457 lbs/ inch
	Test Method								ASTM D1682	ASTM D1682	DIN EN ISO 1421-1	DIN EN ISO 1421-1
Adhesion	Warp, Fill					100 N/5cm; 12 lb/in	100 N/5cm; 12 lb/in				> 11 lbs/ inch	> 11 lbs/ inch
Adresion	Test Method					DIN 53357	DIN 53357				DIN EN ISO 2411	DIN EN ISO 2411
Hydrostatic	Warp, Fill							1 psi	70 cm	60 cm		
Resistance	Test Method								FED-STD 191 (5514)	FED-STD 191 (5514)		
	Warp, Fill							-20 F			-30 C -22 F	-40 C -40 F
Cold Crack	Test Method										DIN EN 1876-1 IVK 3.5	DIN EN 1876-1 IVK 3.5
Buming 0	Characteristics, Test Method	ASTM E-84 Class A	NFPA 701, CSFMTitle 19 1237.1, ASTM E-84 Class A	ASTIM E84, CSFM, NFPA 701	ASTM E84, CSFM, NFPA 701	DIN 4102 B1, M2, 8S 5651, ASTM E162-94, SIS 650082, CL2, E-84	DIN 4102 B1, M2, BS 5651, ASTM E162-94, SIS 650082, CL2, E-84	CPAI-84, NFPA 701 Method 2, CAN ULC-S109-03, FAA/FAR 25,853	CPAI-84, CSFM Title 19-section 1237, NFPA 701 Method 2, CAN ULC-S109-03, FAA/FAR 25.853	CPAI-84, CSFM Title 19-section 1237, NFPA 701 Method 2, CAN ULC-S109-03, FAA/FAR 25.853	DIN 4102 B1, NFPA701, CSFMT19, ASTM E84, ULC S102, ULC S109, M2	DIN 4102 B1, NFPA701, CSFM T19, ASTM E84, ULC S102, ULC S109, M2
	Light Values, Test Method	AS/NZS 4174:2018	AS/NZS 4174:2018			100% (opaque)	100% (opaque)				PA 2001/41	PA 2001/41
Reflectan	Transmission, ce, Absorption	Variable SRI due to color; available upon request	Variable SRI due to color; available upon request	Depends on color	Depends on color						17%	12% white 3% other color
Seams (Recon	nmended Style)	Overlap Seam	Overlap Seam	RFOverlap	RF-Overlap						Laporbutt	Laporbutt
Constru	uction Method	Patented Interlocking knit pattern	Patented Interlocking knit pattern					Sew			plain 1/1	panama 2/2
UsefulTemp	erature Range	-22 to 155 F	-22 to 155 F	-22–158 F	-22-158 F	-30-70 C	-30-70 C				- 22 F to +158 F	- 40 F to +158 F

	PRODUCT					Po	lyester, PVC-coa	ted				
Recom	mended Uses	Tension tents, tensile structures, frame supported structures	Tension tents, tensile structures, frame supported structures	Tensile Structures, Frame Structures	Clearspan rental tents, tensile tents, tensile structures	Air structures, tension tents, clearspans, tensile structures	Tension tents, tensile structures	Air structures, tension tents, clearspans, tensile structures	Air structures, frame supported structures, tensile structures	Air structures, frame supported structures, tensile structures	Air structures, frame supported structures, tensile structures	Air structures, frame supported structures, tensile structures
Trade N	lame of Fabric	tentalux 650 FR H6671	clipeum 850 BLO H5571-BLO	Sheiter-Rite 8520	Shelter-Rite Tent 3820	Shelter-Rite 8028	Shelter-Rite 8324	Shelter-Rite 9032	Architecture TXA-1300 B 4618, Type IV	Architecture TXA-1100 B 4915, Type III	Architecture TXA-750 B 4961, Type I	Architecture TXA-900 B 4617, Type II
Trademark H	older/Supplier	HEYtex USA www.heytex.com	HEYtex USA www.heytex.com	Architectural Fabrics by Seaman Corp. architectural abrics.com	Architectural Fabrics by Seaman Corp. architecture Fabrics.com	Architectural Fabrics by Seaman Corp. architectural fabrics com	Architectural Fabrics by Seaman Corp. architectura flabrica.com	Architectural Fabrics by Seaman Corp. architectural abrics.com	Verseidag Indutex verseidagus.com	Verseidag Indutex verseidagus.com	Verseidag Indutex verseidagus.com	Verseidag Indutex verseidagus.com
	Weight	5 az/yd²	5 oz/yd²	170 g/m²; 5.0 oz/yd²	170 g/m²; 5.0 oz/yd²	254 g/m²; 7.5 az/yd²	146 g/m²; 4.3 oz/yd²	339 g/m²; 10.0 oz/yd²				
Base Fabric	Weave Style	plain 1/1	plain 1/1	Weft-inserted Warp-knit	Plain woven	Weft-inserted Warp-knit	Weft-inserted Warp-knit	Weft-inserted Warp-knit	Panama	Panama	Plain	Panama
	Yarn Count (Warp, Fill)	100% Polyester; 1100	100% Polyester; 1100									
	Weight (Top, Bottom)											
Coating	UV Topcoat Material	Premium Acrylic	Premium Acrylic	PVDF; Acrylic	Acrylic	PVDF; Acrylic; Kynar; Tedlar	PVDF; Acrylic; Kynar; Tedlar	PVDF; Acrylic; Kynar; Tedlar	PVDF weldable	PVDF weldable	PVDF weldable	PVDF weldable
	UV Topcoat Weight											
L	ife Expectancy	20+ years	20+ years	10+ years	7+ years	20+ years	15+ years	20+ years	15-20 years	15-20 years	15-20 years	15-20 years
Warr	anty, Duration	upon request	upon request	10 years	7 years	10 years; 15 years; 20 years	10 years	10 years; 15 years; 20 years	15 years	15 years	15 years	10 years
	Test Method			ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM 0751
Finished Fabric	Thickness											
	Weight	650 g/m² 19 ozłyd²	850 g/m² 25 oz/yd²	680 g/m²; 20 oz/yd²	678 g/m²; 20 oz/yd²	950 g/m²; 28 oz/yd²	814 g/m²; 24 oz/yd²	1085 g/m²; 32 oz/yd²	38.3 oz/yd²	31.0 oz/yd²	23.6 oz/yd²	26.5 ozyd²
Roll	Width, Usable	250 cm, 98 in 300 cm, 118 in 320 cm, 126 in	250 cm, 98 in 300 cm, 118 in	250 cm; 98 in	250 cm; 98 in	250 cm; 98 in	180 cm; 71 in	180 cm; 71 in	250 cm; 98.42 in	250 cm; 98.42	250 cm; 98.42	250 cm; 98.42 in
	Warp, Fill	≥ 56/56 lbs	≥ 56/56 lbs			1223, 1223 N; 275, 275 lb	623, 594 N; 140, 130 lb	1335, 1335 N; 300, 300 lb	315, 247 lb	214, 180 minimum	67, 67 lb	130, 117 minimum
Tongue Tear	Test Method	DIN 53363	DIN 53363			ASTM 0751	ASTM 0751	ASTM 0751	ASTM D4851	ASTM D4851	ASTM D4851	ASTM D4861
	Warp, Fill			220, 220 N 50, 50 lb.		378, 378 N; 85, 85 lb	356, 289 N; 80, 65 lb	445, 445 N; 100, 100 lb				
Trapezoidal Tear	Test Method			ASTM D4533		ASTM D4533	ASTM D751	ASTM 0751				
	Warp, Fill			1780, 1780 N 400, 400 lb	1669, 1445 N; 375, 325 lb	3115, 3115 N/ cm; 700, 700 lb	1780, 1558 N; 400, 350 lb	3738, 3738 N; 840, 840 lb				-
Grab Tensile	Test Method			ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM 0751				
Strip Tensile	Warp, Fill	≥ 286/286 lbs/ inch	≥ 308/286 lbs/ inch	285, 285 daN/5cm; 325, 325 lb/in	263, 241 daN/5cm; 300, 275 lb/in	916, 916 N/cm; 515, 515 lb/in	263, 210 daN/5cm; 300, 240 lb/in	1156, 1156 N/ cm; 650, 650 lb/in	837, 719 lb	646, 562 lb	337, 337 lb	500, 450 lb
	Test Method	DIN EN ISO 1421-1	DIN EN ISO 1421-1	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D4851	ASTM D4851	ASTM D4851	ASTM D4851
200 10	Warp, Fill	> 11 lbs/ inch	> 11 lbs/ inch	18 N/cm; 10 lb/in	18 N/cm; 10 lb/in	18 N/cm; 10 lb/in	18 N/om; 10 lb/in	18 N/cm; 10 lb/in	17 Ib/in	11 Ibin	11 lb/in	11 lb/in
Adhesion	Test Method	DIN EN ISO 2411	DIN EN ISO 2411	ASTM 0751	ASTM D751	ASTM D751	ASTM D751	ASTM 0751	ASTM D4851	ASTM D4851	ASTM D4851	ASTM D4851
Hydrostatic	Warp, Fill			3.45 Mpa; 500 psi	3.45 Mps; 500 psi	3.45 Mpa; 500 psi	3.45 Mpa; 500 psi	3.45 Mpa; 500 psi				
Resistance	Test Method			ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751				
Cold Crack	Warp, Fill	-40 C -40 F	-30 C -22 F	-40 C, -40 F	-40 C, -40 F	-40 C, -40 F	-40 C, -40 F	-40 C, -40 F, -55 C, -67 F	-40 C, -40 F	-40 C, -40 F	-40 C, -40 F	-40 C, -40 F
15/00/2/2004	Test Method	DIN EN 1876-1 IVK 3.5	DIN EN 1876-1 IVK 3.5	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136	ASTM 02136				Tr.
Burning C	Characteristics, Test Method	DIN 4102 B1, NFPA701, CSFMT19, ULC S102, ULC S109	DIN 4102 B1, NFPA 701, CSFM T19, M2	NFPA701, CSFM, ASTM E84; ASTM D6413	NFPA701, CSFM, ASTM E84; ASTM D6413	NFPA701, CSFM, ASTM E84; ASTM D6413; ULC S109; ULC S102; KUCAS	NFPA701, CSFM, ASTM E84; ASTM D6413; ULC S109; ULC S102	NFPA701, CSFM, ASTM E84; ASTM D6413	DIN 4102 B1, NFPA 701 small scale, CSFM Title 19	DIN 4102 B1, NFPA 701 small scale, CALT-19	DIN 4102 B1, NFPA 701 small scale, CSFM Title 19	DIN 4102 B1, NFPA 701 small scale, CSFM Title 19
	Light Values, Test Method	PA 2001/41	PA 2001/41									
	Transmission, ce, Absorption	42% (-0001)	0%	Depends on color	Depends on color	Depends on color	Depends on color	Depends on color				
Seams (Recom	mended Style)	Laporbutt	Lap or butt	Lap or butt	Lap or butt	Laperbutt	Lap or but	Lap or butt	Lap	Lap	Lap	Lap
Constru	uction Method	plain 1/1	plain 1/1	Heatseal or RF	Heatseal or RF	Heatseal or RF	Heatseal or RF	Heatseal or RF				
UsefulTemp	erature Range	-40 F to +158 F	-22 F to +158 F	-40-160 F	-40-160 F	-40-160 F	-40-160 F	-40-160 F	-40-160 F	-40-160 F	-40-160 F	-40-160 F

	PRODUCT					Polyester, P	VDF-Coated					Polyester, PVDF-Film Laminated
Recom	nmended Uses	Air Structures, frame structures, tension tents, tensile structures	Air structures, frame structures, tension tents, tensife structures	Air structures, frame structures, tension tents, tensile structures	Air structures, frame structures, tension tents, tensile structures	Air Structures, frame structures, tension tents, tensile structures	Air Structures, frame structures, tension tents, tensile structures	Air structures, frame structures, tension tents, tensile structures	Air structures, frame structures, tension tents, tensile structures	Frame structures, tension structures	Frame structures	Air structures, frame structures, tension tents, tensile structures
Trade N	Name of Fabric	Hiraoka HG102	Hiraoka HG212	Hiraoka HG313	Hiraoka HG412	Hiraoka HG212-SHS	Hiraoka HG212-HT	Hiraoka HG212-MT	Hiraoka HG212(B)	Hiraoka - SG1800	Hiraoka - SG4180	Hiraoka PVF212
Trademark H	older/Supplier	Hiraoka & Co. Ltd. tarpo-hiraoka.com/en					Hiraoka & Co. Ltd.					
	Weight											
Base Fabric	Weave Style	Plain weave	Plain weave	Panama weave	Panama weave	Plain weave	Plain weave	Plain weave	Plain weave	Plain weave	Plain weave	Plain weave
3	Yam Count (Warp, Fill)					n-Stor.			2			
	Weight (Top, Bottom)											
Coating	UV Topcoat Material	PVDF	PVDF	PVDF	PVDF	PVDF	PVDF	PVDF	PVDF	PVDF	PVDF	PVDF
3	UV Topcoat Weight											
Ĺ	ife Expectancy											
Warr	ranty, Duration	20 years	20 years	20 years	20 years	25 years	15 years	15 years	20 years	10 years	10 years	20 years
	Test Method	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM 0751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751
Finished Fabric	Thickness	0.80 mm; 23 mil	0.77 mm; 30 mil	0.91 mm; 36 mil	1.2 mm; 47 mil	0.77 mm; 30 mil	0.77 mm; 30 mil	0.77 mm; 30 m il	0.77 mm; 30 mil	0.68 mm; 27 mil	0.9 mm; 36 mil	0.79 mm; 31 mil
	Weight	770g/m²; 23 oz/yd²	950 g/m²; 28 oz/yd²	1080 g/m²; 32 oz/yd²	1470 g/m²; 43.4 oz/yd²	950 g/m²; 28 oz/yd²	950 g/m²; 28 oz/yd²	960 g/m²; 28 oz/yd²	950 g/m²; 28 oz/yd²	790 g/m²; 23 oz/yd²	960 g/m²; 28 oz/yd²	950 g/m²; 28 oz/yd²
Roll	Width, Usable	204 cm; 80.3 in	204 cm; 80.3 in	204 cm; 80.3 in	204 cm; 80,3 in	204 cm; 80.3 in	204 cm; 80.3 in	204 cm; 80.3 in	204 cm; 80.3 in	204 cm; 80.3 in	185 cm; 73 in	204 cm; 80.3 in
Tongue Tear	Warp, Fill Test Method											÷.
	Warp, Fill	16, 16 daN; 36, 36 lbs	40, 40 daN; 90, 90 lbs	67, 67 daN; 151, 151 lbs	95, 90 daN 214, 202 lbs	40, 40 daN; 90, 90 lbs	40, 40 daN; 90, 90 lbs	40, 40 daN; 90, 90 lbs	40, 40 daN; 90, 90 lbs	20, 20 da N; 45, 45 lbs	32, 28 daN; 73, 63 lbs	40, 40 daN; 90, 90 lbs
Trapezoidal Tear	Test Method	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM 0751	ASTM D751	ASTM 0751	ASTM 0751	ASTM D751
Grab Tensile	Warp, Fill											
	Test Method											3
Strip Tensile	Warp, Fill	310, 280 daN/5cm; 354, 320 lb/in	510, 520 daN/5 cm; 582, 594 lb/in	610, 590 daN/5 cm; 697, 674 lb/in	830, 700 daN/5 cm; 948, 799 lb/in	510, 520 daN/5 cm; 582, 594 lb/in	510, 520 daN/5 cm; 582, 594 lb/in	510, 520 daN/5 cm; 582, 594 lb/in	510, 520 daN/5 cm; 582, 594 lb/in	240, 220 da N/5 cm; 274, 251 lb/in	130, 125 daN/5 cm; 148, 142 lb/in	510, 520 daN/5 cm; 582, 594 lb/ir
	Test Method	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D761	ASTM D751
Adhesion	Warp, Fill	10,10 daN/5 cm; 11,11 lb/in	13,13 daN/5 cm; 15,15 lb/in	14,14 daN/5 cm; 16,16 lb/in	15,15 daN/5 cm, 17,17 lb/in	13,13 daN/5 cm; 15,15 lb/in	13,13 daN/5 cm; 15,15 lb/in	13,13 daN/5 cm; 15,15 lb/in	13,13 daN/5 cm; 15,15 lb/in	10,10 daN/5 cm, 11,11 lb/in	10,10 daN/5 cm, 11,11 lb/in	13,13 daN/5 cm; 15,15 lb/in
	Test Method	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM 0751	ASTM D751	ASTM D751	ASTM D751	ASTM D751
Hydrostatic	Warp, Fill											
Resistance	Test Method											
Cold Crack	Warp, Fill	-40	-40	-40	-40	-40	-40	-40	-40	-25	-30	-40
001001000	Test Method	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136	ASTM D2136
Burning (Characteristics, Test Method	EN13501-1 <b-s2d0>, NFPA- 701, ASTM E-84, GB8624<b1>, AS1530-2, AS1530-3</b1></b-s2d0>	EN 13501-1 <b 42d0="">, NFPA- 701, ASTM E-84, GB8624<b1>, AS1530-2, AS1530- 3, DIN4102-1-4B1>, CAN/ULC S109M</b1>	EN1 3501-1 «B-s2d0», NFPA- 701, ASTM E-84, GB8624 <b1», AS1530-2, AS1530-3, CAN/ ULC S109M</b1», 	EN 13501-1 «C-s2d0», NFPA-701	EN13601-1 «B-s2d0», NFPA- 701, ASTM E-84, GB8624-81», AS 1630- 2, AS 1630-3, DIN4 102-1-81», CAN/ULC S 109M	EN13501-1 <b x2d0="">, NFPA- 701, ASTM E-84, GB8624-81>, AS1630-3, DIN4102-1<b1>, CANJULC S109M</b1>	EN13501-1 «B-s2d0», NFPA- 701, ASTM E-84, G88624«B1», AS1630- 2, AS1630-3, DIN4102-1«B1», CAN/ULC S109M	EN13501-1 «B-s2d0», NFPA- 701, ASTM E-84, GB8624-81-3, AS1630-2 2 AS1630-3. DIN4102-1 <b1>, CANULC S109M</b1>	EN 13501-1 «B-s1d0», NFPA-701, ASTM E-84, AS1530-2, AS1530-3, CAN/ ULC S109M	EN13501-1 <8-s260>,	EN13501-1 <b-s2d0>,</b-s2d0>
	Light Values, Test Method	ISO 9050	ISO 9050	ISO 9050	ISO 9050	ISO 9050	ISO 9050	ISO 9050	ISO 9050	ISO 9050	ISO 9050	ISO 9050
Reflectan	Transmission, ce, Absorption	Transmission: 14%	Transmission: 13%	Transmission: 12%	Transmission: 4%	Transmission: 3%	Transmission: 20%	Transmission: 0%	Transmission: 0%	Transmission: 58%	Transmission: 65%	Transmission: 3%
Seams (Recon	nmended Style)	Overlap	Overlap	Overlap	Overlap	Overlap	Overlap	Overlap	Overlap	Overlap	Overlap	Overlap
Constr	uction Method	Heatseal, RF weld	Heatseal, RF weld	Heatseal, RF weld	Heatseal, RF weld	Heatseal, RF weld	Heatseal, RF weld	Heatseal, RF weld	Heatseal, RF weld	RF weld	RF weld	Abrasion RF weld
Useful Temp	erature Range	-40-70 C; -40-158 F	-40-70 C; -40-158 F	-40-70 C; -40-158 F	-40-70 C; -40-158 F	-40-70 C; -40-158 F	-40-70 C; -40-158 F	-40-70 C; -40-158 F	-40-70 C; -40-158 F	-25-70 C; -13-158 F	-30-70 C; -22-158 F	-40-70 C; -40-158 F

	PRODUCT	Polyester, Solution Dyed	Polyester, Vinyl Mesh-Coated				Polye	ester, Vinyl-Lamir	nated			
Recon	nmended Uses	Tents, tensile structures, awnings, canopies	Façade, Building coverings, Printed façade, Backlit and frontlit panels, Catamaran Trampoline	ClearSpan Tents, Long term structures	Tension tents, pole tents, clearspans, tent sidewall	Tension tents, pole tents, tent sidewall	Tent sidewalls	Tent sidewalls	Tent si dewalls	Pole tents, clearspans, tensile structures, tent sidewall	Tension tents, pole tents, clearspans, tent sidewell	Pole tents, tent sidewall
Trade I	Name of Fabric	Top Notch FR	Hiraoka – DreamView ⁻	Architent Excel	Architent StarFree Blackout	ArchitentVT Blackout	Architent Wideside 90*	Architent Wideside 98*	Architent Wideside Opaque 98"	ArchSpan Blackout 96"	Showtime S-83 Blackout	Showtime II Translucent
Trademark H	lolder/Supplier	Marien Textiles marientextiles.com	Hiraoka & Co. Ltd. tarpo-hiraoka.com/en	Herculite Products Inc. herculite.com	Herculite Products Inc. herculite.com	He roulite Products Inc. heroulite.com	Herculite Products Inc. herculte.com	Herculite Products Inc. herculte.com	Herculite Products Inc. herculte.com	Herculite Products Inc. herculte.com	Herculite Products Inc. herculte.com	Herculite Products Inc. herculite.com
	Weight	11.5 cz/yd²										
Base Fabric	Weave Style	Plain										
	Yarn Count (Warp, Fill)											
	Weight (Top, Bottom)											
Coating	UV Topcoat Material		Acrylic									
	UV Topcoat Weight											
L	ife Expectancy	8-10 years		8 years	7 years	5 years	5 years	5 years	5 years	5 years	5 years	5 years
War	ranty, Duration	8 years	10 years	5 years	3 years	2 years	N/A	N/A	N/A	2 years	2 years	2 years
	Test Method	ASTM D3776	ASTM D751									
Finished Fabric	Thickness	16 mil	0.92 mm; 36.2 mil									
	Weight	11.5 cz/ydF	550 g/m²; 16 oz/yd²	20 oz/yd²	18.5 oz/yd²	16 oz/yd ^g	10 oz/yd²	12.5 oz/yd ^p	16 oz/yd²	13 oz/yd²	17 cz/yd²	14 oz/ydP
Roll	Width, Usable	60 in	190 cm; 74.8 in and 204 cm; 80.3 in	61 and 64 in	61 in	61 in	90 in	98 in	98 in	96 in	61 in	61 in
Tongue Tear	Warp, Fill	24 x 14		175, 165 lb/in	115/110	100/120	30, 35 lb/in	100, 100 lb/in	100, 100 lb/in	115, 125 lb/in	105/115	100/110
longue real	Test Method	ASTM D2261		ASTM D2261/1	ASTM D2261/1	ASTM D2261/1	ASTM D2261/1	ASTM D2261/1	ASTM D2261/1	ASTM D2261/1	ASTM D2261/1	ASTM D2261/1
	Warp, Fill	58, 32	40, 40 daN; 90, 90 lbs									
Trapezoidal Tear	Test Method	ASTM D4533	ASTM D751									
Grab Tensile	Warp, Fill	500 x 240		450/345	245/225	235/210	115, 115 lb/in	230/220	230/220	230/220	245/220	220/205
	Test Method	ASTM D1682		ASTM D5035	ASTM D5035	ASTM D5035	ASTM D5035	ASTM D5035	ASTM D5035	ASTM D5035	ASTM D5035	ASTM D5035
Strip Tensile	Warp, Fill		300, 300 daN/5 cm; 343, 343 lb/in									
	Test Method		ASTM D751									
Adhesion	Warp, Fill			15 lb/in²	16 lb/in²	15 lb/in²	15 lb/in²	15 lb/in²	15 lb/in²	15 lb/in²	15 lb/in²	15 lb/in²
	Test Method			ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751	ASTM D751
Hydrostatic	Warp, Fill	95 cm		475 psi	405 psi	360 psi	165 psi	325 psi	350 psi	340 psi	405 psi	340 psi
Resistance	Test Method	AATCC 127		FED-STD 191 (5512)	FED-STD 191 -40 F	FED-STD 191 (5512)	FED-STD 191 (5512)	FED-STD 191 (5512)	FED-STD 191 (9512)	FED-STD 191 (5512)	FED-STD 191 -40 F	FED-STD 191 (5512)
Cold Crack	Warp, Fill			-40 F	-40 F	-40 F	-40 F	-40 F	-40 F	-40 F	-40 F	-40 F
	Test Method	ingezeerren sonor		FED-STD 191 (5874)	FED-STD 191	FED-STD 191 (5874)	FED-STD 191 (5874)	FED-STD 191 (5874)	FED-STD 191 (5874)	FED-STD 191 (5874)	FED-STD 191	FED-STD 191 (5874)
Burning (Characteristics, Test Method	CPAI-84, CSFM Title 19-section 1237, NFPA 701 Method 2, CAN ULC-S109-03, FAAFAR 25.853	NFPA-701, EN13501-1, JIS A1322	EN13501-1 <b-s1d0>, ASTM E-84, AS1530-2, AS1530-3.</b-s1d0>	CSFM, NFPA 701	CSFM Reg. F-122.03, NFPA 701	CSFM Reg. F-122.02	CSFM Reg. F-122,13	CSFM, NFPA 701	CSFM, NFPA 701	CSFM, NFPA 701	CSFM Reg. F-122.03, NFPA 701
	Light Values, Test Method											
Reflectar	Transmission, ace, Absorption											
Seams (Recon	nmended Style)		Overlap									
Constr	uction Method		RF weld	Heatseal/sew/ RFWeld	Heatseal/sew/ RF weld	Heatseal/sew/ RF weld	Heatseal/sew/ RF weld	Heatseal/sew/ RF weld	Heatseal/sew/ RF Weld	Heatseal/sew/ RF weld	Heatseal/sew/ RF weld	Heatseal/sew/ RF weld
UsefulTemp	perature Range											

	PRODUCT		Polye	ester, Vinyl-Lami	nated		Pol	ymer, Solution D	Dyed		PTFE, 100%	
Recom	mended Uses	Pole Tents, Sidewall	Tension Tents, Pole Tents, Sidewall	TensionTents, PoleTents, Sidewall	Tension Tents, Pole Tents, Side wall	Sidewall	Tents	Tents, tensile structures, shade sails	Tents, tensile structures, shade sails	Tension tents, pole tents, clearspans, tensile structures	pole tents, clearspans, tensile structures Sefar Architecture EL-40-T1 SEFAR sefarcom Panama 2'2 P	Tension tents, pole tents, clearspans, tensile structures
Trade N	Name of Fabric	Weatherspan PRV 1310Q	Weatherspan PRV 1610R	Weatherspan PRV 1813W	Weatherspan PRV 1444K	Weatherspan PRV 1218K	Firesist	WeatherMAX 80	WeatherMAX FR	Sefar Architecture EH-35-T2	Architecture	Sefar Architecture EL-55-T0
Trademark H	older/Supplier	Snyder Manufacturing snyderman.com	Snyder Manufacturing snydeman.com	Snyder Manufacturing snyderman.com	Snyder Manufacturing snyderman.com	Smyder Manufacturing snyderman.com	Glen Raven Custom Fabrics LLC glenraven.com sunbrella.com	Safety Components weathernax.com	Safety Components weathermax.com	SEFAR setar.com	ASS. State 2 To 11	SEFAR sefar.com
	Weight	2.6 oz./yd²	2.6 oz/yd²	4 oz./yd²	1.3 oz./ydF	1.4 oz/yd ^p		8.0 oz/yd ^p	8.0 oz/yd²			
Base Fabric	Weave Style	weft insertion knit	weft insertion knit	Woven	weft insertion knit	weft insertion knit	Plain	Ottoman	Ottoman	Plain 1/1	Panama 2/2	Cross-Twill 2/2
	Yarn Count (Warp, Fill)	9X9 polyester	9X9 polyester	13x13 polyester	4.5×4.5 polyester	18x9 polyester	116, 30 tpi			Fluoropolymer	Fluoropoly mer	Fluoropolymer
	Weight (Top, Bottom)						Yes		1.75 cz			
Coating	UV Topcoat Material									Fluoropolymer	Ruoropolymer	Fluoropalymer
	UV Topcoat Weight									5		
L	ife Expectancy						5+ years	7-12 years	7-10 years	20+ years	20+ years	20+ years
Warr	ranty, Duration						5 years	10 years	5 years	10 years	10 years	10 years
	Test Method	FED-STD 5041	FED-STD 5041	FED-STD 5041	FED-STD 5041	FED-STD 5041	ASTM D3776					
Finished Fabric	Thickness							.38 mm	.42 mm	0.41 mm, 0.016 in		0.19 mm, 0.008 in
	Weight	13 az/ydF	16-20 oz/yd²	18 oz/yd²	14 oz/yd²	12 az/yd²	8.75 oz/yd ^p	8.0 az/yd²	9.75 oz/yd²	530 g/m²	330 g/m²	250 g/m²
Roll	Width, Usable	61 in	61 in	61 in	61 in	61 in	60 in	60 in	60 in	1.6 m, 63 in	1.6 m, 63 in	1.6 m, 63 in
	Warp, Fill	60, 60lbs/in	60, 60lbs/in	90, 90lbs/in	30, 30lbs/in	25, 25lbs/in	20, 14 lb/in	20, 18 lb/in	13, 15 lb/in			
Tongue Tear	Test Method	ÆD-STD 5134	FED-STD 5134	FED-STD 5134	FED-STD 5134	FED-STD 5134	ASTM 2261-96	ASTM D2261	ASTM D2261			
	Warp, Fill							69, 32 lb/in	35, 30 lb/in		30 N/5 cm	
Trapezoidal Tear	Test Method							ASTM D5587	ASTM D5587		DIN 53859-5	
Grab Tensile	Warp, Fill	220, 200 libs/in	220, 200 lbs/in	315, 295 lbs/in	140, 125, Ibs/in	100, 100 ibs/in	350, 200 Lbf	490, 390	490, 390	4100, 4000 N/5 cm, 457, 456 lb/in		1500, 1600 N/5 cm; 171, 182 lb/in
Grab lensile	Test Method	FED-STD 5100	FED-STD 5100	FED-STD 5100	FED-STD 5100	FED-STD 5100	ASTM D5034-95	ASTM D5034	ASTM D5034	EN ISO 13934-1	EN ISO 13934-1	ENISO 13934-1
Strip Tensile	Warp, Fill											
	Test Method											
Adhesion	Warp, Fill	22	20	20	20	25						
Auticaon	Test Method	FED-STD 5970	FED-STD 5970	FED-STD 5970	FED-STD 5970	FED-STD 5970						
Hydrostatic	Warp, Fill	345	360	300	200	180	96 cm	50 cm	90+ cm			
Resistance	Test Method	FED-STD 5512	FED-STD 5512	FED-STD 5512	FED-STD 5512	FED-STD 5512	AATCC 127- 1998	AAT CC 127	AATCC 127			
	Warp, Fill	-40	-40	-40	-40	-40	Pass	No change after 5 days at -40 F	No change after 5 days at -40 F			
Cold Crack	Test Method	FED-STD 191 (5874)	FED-STD 191 (5874)	FED-STD 191 (5874)	FED-STD 191 (5974)	FED-STD 191 (5874)	ASTM B751-06	SAE J 323	SAE J 323			
Burning (Characteristics, Test Method	CSFM, NFPA 701	CSFM, NFPA 701	CSPM, NFPA 701	CSFM, NFPA 701	CSFM, NFPA 701	ASTM E84, CSFMTitle 19, NFPA 701, UFCA Class I, CPAI-84		CPAI-84, CSFM Title 19, NFPA 701, ASTM E-84, Canadian CAN/ULC-S109	ASTM EB4 Class A, B1 to DIN 4102, EN 13501 B-s1, DO	ASTM E84 Class A, B1 to DIN 4102, EN13501 B-s1, DO	ASTM E84 Class A, B1 to DIN 4102, EN 13501 B-s1, DO
	Light Values, Test Method						EN410/14500 for a range of colors	Varies by color	Varies by color	ASTM D1003	ASTM D1003	ASTM D1003
	Transmission, ice, Absorption	Depends on color	Depends on color	Depends on color		Depends on color	0-19%, 4-81%, 1-96%			35%, 64%, 1%	40%, 59%, <1%	55%, 44%, 1%
Seams (Recom	nmended Style)						Lapor French hem	Lap, French	Lap, French	Lap	Lap	Lap
Constr	uction Method	Heatseal/sew/ RF Weld	Heatseal/sew/ RF Weld	Heatseal/sew/ RF Weld	Heatseal/sew/ RFWeld	Heatseal/sew/ RFWeld	Heatseal with tape, sew	Sew heatseal	Sew heatseal or RF (with tape)	Sew	Sew	Sew
Useful Temp	erature Range						-40-225 F	-40-170 F	-40-170 F	-20 F to 125 F	-20 F to 125 F	-20 F to 125 F

	PRODUCT	PTFE Mesh		PV	C Coated Polyes	iter – Acrylic Coa	ited		PVC Coated Po	olyester – PVDF		d Polyester – ble PVDF
Recon	nmended Uses	Facades, shadesails, shade structures, tensile structures, awnings	Tensile structure, frame tent, canopy	Tent, awning, clearspan small tensile structures	Tensile structure, frame tent, canopy	Tent & structure liner membrane	Tent & structure liner membrane	Tents - clearspan, pole tent, frame tent, tension tent, tensile structures, shade structures, shadesails, tent sidewalls, awnings	Permanent applications - facades, shade structures, tensile structures, frame structures	Permanent applications - facades, shade structures, tensile structures, frame structures	Air structures, frame structures, tensile structures, mobile structures, clearspans, shade structures	Air structures, frame structures, tensile structures, mobile structures, clearspans, shade structures
Trade I	Name of Fabric	Frontside Safe P35	Polymar Poly Opak Item 8596	Valmex FR 650-2 Item 7216 and Item 8212	Valmex FR 700 Opak Item 7209	Flexlight Classic 402	Flexilight Lighting 402HT	Flexlight Classic 602 Opaque	Flexlight Xtrem TX30Type 3	Flexdight Xtrem TX30Type 5	Flextight Advanced 1202 S2	Flexlight Advanced 1302 S2
Trademark H	lolder/Supplier	Serge Ferrari semeferrari.com/us	Mehler Texnologies mehler-taxologies.com	Mehler Texnologies mahlertecnologies.com	Mehler Texnologies mehlertecnologies.com	Serge Ferrari sergeferrari.com/us	Serge Ferrari sergeferrari.com/us	Serge Ferrari sergeferrari.com/Us	Serge Ferrari sergeferrari.com/us	Serge Ferrari sergeferrari.com/us	Serge Ferrari sergeferrari comAus	Serge Ferrari sergeferrari.com/us
9	Weight											
Base Fabric	Weave Style		Single weave	Single weave	Single weave	Precontraint* - basket weave	Precontraint® – basket weave	Precontraint* – basket weave	Precontraint* – basket weave	Precontraint* - basket weave	Precontraint* – basket weave	Precontraint* - basket weave
	Yarn Count (Warp, Fill)	PTFE coated glass				High tenacity polyester	High tenacity polyester	High tenacity polyester	High tenacity polyester	High tenacity polyester	High tenacity polyester	High tenacity polyester
	Weight (Top, Bottom)	28.5 ozlyd [‡]		60/40		14.5 ozlydi	14.5 oz/yd ^g	22.1 oz/yd²	31 oz∖ydF	44 oz/yd ²	31 oziyd²	40 oz/yd²
Coating	UV Topcoat Material	PTFE	Weldable Acrylic or PVDF top coated	Fully weldable acrylic or PVDF no grinding needed	Weldable Acrylic or PVDF top coated	Acrylic	Acrylic	Acrylic	PVDF	PVDF	Calibrated PVDF	Calibrated PVDF
	UV Topcoat Weight											
ı	ife Expectancy	20 years	12+ years	10-12 years	12+ years	20 years	20 years	8 years	30 years	30 years	20 years	20 years
War	ranty, Duration	10 years	5 year limited	5 year limited	5 year limited		10 years interior	3 years	20 years	20 years	15 years	15 years
	Test Method					NF EN ISO 2286-2	NF EN ISO 2286-2				NF EN ISO 2296-2	NF EN ISO 2286-2
Finished Fabric	Thickness								0.78 mm	1.14 mm	0.78 mm	1.02 mm
	Weight		23 az/yd² (800 gsm)	19 oz/yd² (650 gsm)	25 oz/yd² (850 gsm)	14.5 oz/yd²	14.5 oz/yd²	22.1 oz/ydF	31 ozlydF	44 oz/ydf	31 ozlyď	40 oz/yd²
Roll	Width, Usable	106 in	61 in, 98.4 in, 118.1 in (1.55 m, 2.5 m, 3.0 m)	61 in, 98.4 in, 120 in (1.55 m, 2.5 m, 3.05 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	105 in	105 in	61 in, 98 in & 105 in	70 in	70 in	105 in	105 in
2010 - 10	Warp, Fill		350/350 N	300/270 N	30 0/300 N							
Tongue Tear	Test Method		DIN 53363	DIN 53363	DIN 53363							
	Warp, Fill					20, 20 daN/5 cm	20, 20 daN/5 cm	25, 25 daN/5 cm	130, 110 lb/in	235, 165 lb/in	130, 100 lb/in	200, 180 lb/in
Trapezoidal Tear	Test Method					DIN 53363	DIN 53363	DIN 53363	ASTM D751-00	ASTM D751-00	ASTM D751-00	ASTM D751-00
Grab Tensile	Warp, Fill											
	Test Method											
StripTensile	Warp, Fill		3500/3500 N/5 cm	2800/2700 N/5 cm	3000/3000 N/5 cm	230, 220 deN/5 cm	250, 250 daN/5 cm	250, 250 daN/5 cm	565, 565 lb/in	1020, 810 lb/in	630, 630 lb/in	900, 800 lb/in
	Test Method		DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	NF EN ISO 1421	NF EN ISO 1421	NF EN ISO 1421	ASTM 0751-00	ASTM 0751-00	ASTM D751-00	ASTM D751-00
Adhesion	Warp, Fill			20 N/cm		8 daN/5 cm	8 daN/5 cm	9 daN/5 cm	12 daN/5 cm	15 daN/5 cm	12 daN/5 cm	13 daN/5 cm
Aditesion	Test Method			PA 09.03 (internal)		NFG 37.107	NF EN ISO 2411	NF EN ISO 2411	NF EN ISO 2411	NF EN ISO 2411	NF EN ISO 2411	NF EN ISO 2411
Hydrostatic	Warp, Fill											
Resistance	Test Method											
Cold Crack	Warp, Fill		-40	-40	-40							
H01100000000000	Test Method		DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1							
Burning (Characteristics, Test Method	ASTM 136	CSFMT19, ASTM E84, NFPA 701, Can ULC \$109, others upon request	CSFM T19, ASTM E84, NFPA 701, others upon request	CSFMT19, ASTM E84, NFPA 701, others upon request	CSFM, NFPA 701	CSFM, NFFA 701	CSFM, NFPA 701, ASTM E662	CSFM, NFPA 701	CSFM, NFPA 701	CSFM, NFPA 701	CSFM, NFPA 701
	Light Values, Test Method			ASHRAE 74 1988/ ISO EN 410			EN 410				ASHRAE 74- 1988	ASHRAE 74- 1988
Reflectan	Transmission, ice, Absorption			Transmission 8% White 907901 Transmission 16% HTL version 9 19008 Reflection 87% Absorption 5%	Transmission 0% Reflection 85% Absorption 15%		36%, 50%, 14%	Opaque	9%, 75%, 16%	6%, 76%, 18%	7%, 77%, 16%	5%, 78%, 17%
Seams (Recon	nmended Style)	PTFE weld	Lap	Lap	Lap	RF-Overlap	RF-Overlap	RF-Overlap	Abrasion-RF- Overlap	Abrasion-RF- Overlap	RF-Overlap	RF-Overlap
Constr	uction Method		RF, hot air, wedge	RF, hot air, wedge	RF, hot air, wedge							
UsefulTem	perature Range	-22-158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F	-22-158 F	-22-158 F	-31-158 F, static position	-22-158 F	-22-158 F	-22-158 F	-22-158 F

	PRODUCT	PVC Coated Polyester – Weldable PVDF			PVC Coated Po	lyester – Weldab	le PVDF Coated	0		PVC C PVDF	oated Polyester Dual-Sided Top (Mesh Coating
Recom	mended Uses	Tents - clearspan, pole tent, frame tent, tension tent, tensile structures, shade structures, shadesails, tent sidewalls, awnings	normanent	Tensile architecture, permanent tent, awning, air supported	Tensile architecture, permanent tent, awning, air supported	Awnings, shades, umbrellas, shade sails, tensile architecture, tent, canopy	Tensile architecture, permanent tent, awning	Tensile architecture, permanent tent, awning, air supported	Tensile architecture, permanent tent, awning, air supported	Façade, shade structures, tensile architecture, sound abatement	Façade, shade structures, tensile architecture, sound abatement	Façade, shade structures, tensile architecture, sound abatement
Trade N	Name of Fabric	Flexlight Perform 702 S2 Opaque	Valmex FR 1000, Type III Item 7269 and Item 7243	Valmex FR 1400, Type IV Item 7270	Valmex FR 1600, TypeV Item 7274	Valmex FR 580 S, Type 0 Item 7213 and Item 7219	Valmex FR 700, Type I Item 7205 and Item 7241	Valmex FR 900, Type II Item 7211 Item 7242 Item 8540	Valmex FR 1000, Opaque Nano Type III Item 7263-5256	Façade ~34% Open Valmex FR TF 400 item 7280	Façade ~50% Open Valmex FR TF 500 Item 7285	Façade ~24% Open Valmex FR TF 600 Item 7288
Trademark H	older/Supplier	Serge Ferrari sergeferrari.com/us	Mehler Texnologies mehlertænologies.com	Mehier Texnologies mahlerteendogies.com	Mehler Texnologies mehlerteandogies.com	Mehler Texnologies mehlertemologies.com	Mehler Texnologies mehlersamologies.com	Mehler Texnologies mehler sondogies.com	Mehler Texnologies mahler texnologies con	Mehler Texnologies mahler texnologies.com	Mehler Texnologies mehler sændogies som	Mehler Texnologies mehlerternologies.com
	Weight						100					
Base Fabric	We ave Style	Precontraint® – basket weave	Panama weave 2/2	Modified Panama 3/3	Modified Panama 3/4	Single weave	Single weave	Panama weave 2/2	Panama weave 2/2	Open weave mesh	Open weave mesh	Open weave mesh
	Yarn Count (Warp, Fill)	High tenacity polyester										
-	Weight (Top, Bottom)	24.5 oz/yd²	60/40	60/40	60/40		60/40	60/40	60,40			
Coating	UV Topcoat Material	Calibrated PVDF	Weldable PVDF no grinding needed	Weldable PVDF no grinding needed	Weldable PVDF no grinding needed	Weldable PVDF no grinding needed	Weldable PVDF no grinding needed	Weldable PVDF no grinding needed	Weldable Nano titanium PVDF no grinding needed	Weldable PVDF no grinding needed	Weldable PVDF no grinding needed	Weldable PVDF nogrinding needed
	UV Topcoat Weight											
L	ife Expectancy	12 years	25+ years	25+ years	25+ years	15+ years	25+ years	25+ years	30+ years	12+ years	12+ years	15+ years
Warr	ranty, Duration	7 years	15 years	15 years	15 years	10 year limited	15 years	15 years	20 years	10 years	10 years	10 years
	Test Method	NF EN ISO 2286-2										
Finished Fabric	Thickness	0.64 mm								.95 mm	1.25 mm	1.41 mm
	Weight	26.7 oz/yd²	31 oz/yd² (1050 gsm)	40 oz/yd² (1350 gsm)	45 oz/yd² (1550 gsm)	17 oz/yd² (580 gsm)	20.5 oz/yd² (700 gsm)	26,5 oz/yd² (900 gsm)	33.3 oz/yd² (1130 gsm)	12.4 oz/yd² (450 gsm)	14.7 oz/yd² (500 gsm)	31 oz/yd² (1050 gsm)
Roll	Width, Usable	98 in & 105 in	98.4 in, 118.1 in (2.5 m, 3.0 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	98.4 in (2.5 m)	98,4 in, 118,1 in (2.5 m, 3.0 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	126 in (3.2 m)	126 in (3.2 m)	126 in (3.2 m)
	Warp, Fill		900/800 N	1200/1200 N	2000/2000 N	300/300 N	300/300 N	500/500 N	900/800 N	800/550 N	1100/800 N	1800/1800 N
Tongue Tear	Test Method		DIN 53363	DIN 53363	DIN 53363	DIN 53363	DIN 53363	DIN 53363	DIN 53363	DIN 53363	DIN 53363	DIN 53363
	Warp, Fill	30, 28 daN/5 cm										
Trapezoidal Tear	Test Method	DIN 53363										
Grab Tensile	Warp, Fill											
	Test Method											
Strip Tensile	Warp, Fill	280, 280 daN/5 cm	6000/5500 N/5 cm	8000/7000 N/5 cm	10000/9000 N/5 cm	2900/2700 N/5 cm	3000/3000 N/5 cm	4300/4200 N/5 cm	6000/5500 N/5 cm	4000/3000 N/5 cm	4000/3200 N/5 cm	6000/5500 N/5 cm
	Test Method	NF EN ISO 1421	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1
Adhesion	Warp, Fill	10 daN/10 cm	25 N/cm	26 N/em	30 N/cm		20 N/cm	25 N/cm	25 N/cm			
Adiresion	Test Method	NF EN ISO 2411	PA 09:03 (internal)	PA 09.03 (internal)	PA 09.03 (internal)		PA 09.03 (internal)	PA 09.03 (internal)	PA 09.03 (internal)			
Hydrostatic	Warp, Fill											
Resistance	Test Method											
Cold Crack	Warp, Fill		-40	-40	-40	-40	-40	-40	-40	-20	-20	-20
Sold Siden	Test Method		DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1
Burning (Characteristics, Test Method	CSFM, NFPA 701	CSFMT19, ASTM E84, NFPA 701, others upon request	CSFMT 19, ASTM EB4, NFPA 701, others upon request	CSFMT19, ASTM E84, NFPA 701, others upon request	CSFMT 19, ASTM E84, NFPA 701, others upon request	CSFMT19, ASTM E84, NFPA 701, others upon request	CSFMT19, ASTM E84, NFPA 701, others upon request	CSFMT 19, ASTM E84, NFPA 701, others upon request	CSRMT19, ASTM E84, NFPA 701, others upon request	CSFMT19, NFFA 701, others upon request	CSFMT 19, ASTM E84, NFPA 701, others upon request
	Light Values, Test Method		ASHRAE 74 1988/ ISO EN 413	ASHRAE 74 1988/ISO EN 414	ASHRAE 74 1988/ ISO EN 415		ASHRAE 74 1988/ ISO EN 411	ASHRAE 74 1989/ ISO EN 412	ASHRAE 74 1988/ ISO EN 413			
Reflectan	Transmission, ice, Absorption	Opaque	Transmission 6% White 958958 Transmission 10% HTL version 958008 Reflection 84/92 Absorption 10/12	Transmission 5% Reflection 86/84 Absorption 9/11	Transmission 3% Reflection 96/84 Absorption 11/13	Depending on color, multiple options in stock	Transmission 9% Reflection 83/81 Absorption 8/10	Transmission 7% White 958958 Transmission 12% HTL version 919008 Reflection 8582 Absorption 811	Transmission 0% Reflection 84/82 Absorption 10/12			
Seams (Recon	nmended Style)	RF-Overlap	Lap	Lap	Lap	Lap	Lap	Lap	Lap	Lap	Lap	Lap
Constru	uction Method		RF, hot air, wedge	RF, hot air, wedge	RE hot air, wedge	RF, hot air, wedge	RF, hot air, wedge	RIF, hot air, wedge	RF, hot air, wedge	RF, hot air, wedge	RF, hot air, wedge	RF, hot air, wedge
UsefulTemp	erature Range	-22-158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F	-20 to 158 F	-20 to 158 F	-20 to 158 F

	PRODUCT		PVC Coate	d Polyester – We	idable Nano PV	DF Coating		PVC Laminate	PVDF	PVDFFilm		Coated Composite
Recon	nmended Uses	Tensile architecture, long-term applications small structures	Tensile architecture, long-term applications small-medium structures	Tensile architecture, long-term applications medium structures	Tensile architecture, long-term applications medium-large structures	Tensile architecture, long-term applications large structures	Tensile architecture, permanent tent, awning, air supported	Awnings, Protective Covers, Signs & Banners, Tents, Pergolas, Tension, Structures, Shade, & Structures	Tension facades, shading		Marine upholstery, outdoor furniture, RV, contract, indoor upholstery	Marine upholstery, outdoor furniture, RV, contract, indoor upholstery
Trade f	Name of Fabric	Valmex FR 700 Nano, Type I Item 7205-5256	Valmex FR 900 Nano, Type II Item 7211-5256	Valmex FR 1000 Nano, Type III Item 7269-5256	Valmex FR 1400 Nano, Type IV Item 7270-5256	Valmex FR 1600 Nano, Type V Item 7274-5256	Valmex FR 900 Opaque Nano, Type II Item 7261-5256	Haven	Sefar Architecture VE 200-S	DX-Film	Stamskin One	Stamskin Allure
Trademark H	lolder/Supplier	Mehler Texnologies mehlertæmologies.com	Mehler Texnologies mehler tomologies con	Mehler Texnologies mahler texnologies.com	Mehler Texnologies mehlerszenologies.com	Mehler Texnologies mahler texnologies.com	Mehler Texnologies mehlertsvnologies.com	Miami Corp./ Snyder miamicorp.com	SEFAR sefar.com	Denka denka co jip	Miami Corp./ Serge Ferrari miamicorp.com	Miami Corp./ Serge Ferrari miamicorp.com
	Weight			150		12.	-35		990 g/m²	2.01 ozłyd² (50µm)	19.2 oz/lin yd	19.2 oz/lin yd
Base Fabric	We ave Style	Single Weave	Panama weave 2/2	Panama weave 2/2	Modified Panama 3/3	Modified Panama 3/4	Panama weave 2/2	9x9 1000 denier in both direction	Taffeta			
	Yarn Count (Warp, Fill)								PVDF			
	Weight (Top, Bottom)	60/40	60/40	60/40	60/40	60/40	60/40					
Coating	UV Topcoat Material	Weldable Nano titanium PVDF no grinding needed		Weidable Nano titanium PVDF no grinding needed	Weldable Nano titanium PVDF no grinding needed	Weldable Nano titanium PVDF no grinding needed	Weldable Nano titanium PVDF no grinding needed					Silicon
	UV Topcoat Weight											
ı	ife Expectancy	30+ years	30+ years	30+ years	30+ years	30+ years	30+ years		20 years	20 years		
War	ranty, Duration	20 years	20 years	20 years	20 years	20 years	20 years	5 years	10 years		7 years	7 years
	Test Method											
Finished Fabric	Thickness								1.3 mm, 0.051 in	0.05 mm		
	Weight	20.5 az/yd² (700 gsm)	26.5 oz/yd² (900 gsm)	31 az/yd² (1050 gsm)	40 oz/yd2 (1350 gsm)	45 oz/yd² (1550 gsm)	29.5 oz/yď² (1000 gsm)	18 ounce sq/yd	990 g/m²	2.01 ozlyd²		
Roll	Width, Usable	98.4 in, 118.1 in (2.5 m, 3.0 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	98.4 in , 118.1 in (2.5 m, 3.0 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	98.4 in, 118.1 in (2.5 m, 3.0 m)	61in	2 m, 78.5 in	52.8 in	56.6 in	56.6 in
Tongue Tear	Warp, Fill	300/300 N	500/500 N	900/800 N	1200/1200 N	2000/2000 N	500/500 N					
	Test Method	DIN 53363	DIN 53363	DIN 53363	DIN 53363	DIN 53363	DIN 53363					
	Warp, Fill										20.6 lbs min./43.5 lbs min	20.6 lbs min/43.5 lbs min
Trapezoidal Tear	Test Method										ASTM D751	ASTM D751
	Warp, Fill								4200, 4500			
Grab Tensile	Test Method								EN ISO 13934-1			
Strip Tensile	Warp, Fill	3000/3000 N/5 cm	4300/4200 N/5 cm	6000/5500 N/5 cm	8000/7000 N/5 cm	10000/5000 N/5 cm	4300/4200 N/5 cm				350N/5cm/ 280N/5cm	350N/5cm/ 280N/5cm
•	Test Method	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1	DIN EN ISO 1421/V1				EN ISO 1421	EN ISO 1421
Adhesion	Warp, Fill	20 N/cm	25 N/cm	25 N/cm	26 N/cm	30 N/cm	25 N/cm				665,000+	665,000+
Adnesion	Test Method	PA 09.03 (internal)	PA 09.03 (internal)	PA 09.03 (internal)	PA 09.03 (internal)	PA 09.03 (internal)	PA 09.03 (internal)				ASTM D4157	ASTM D4157
Hydrostatic	Warp, Fill											
Resistance	Test Method											
C-U.S. I	Warp, Fill	-40	-40	-40	-40	-40	-40					
Cold Crack	Test Method	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1	DIN EN 1876-1					
Burning (Characteristics, Test Method	CSFMT19, ASTM E84, NFPA 701, others upon request	CSFMT19, ASTM E84, NFPA 701, others upon request	CSFM T19, ASTM EB4, NFPA 701, others upon request	CSFMT 19, ASTM EB4, NFPA 701, others upon request	CSFMT19, ASTM E84, NFPA 701, others upon request	CSFMT19, ASTM E84, NFPA 701, others upon request	FLAME Cal State Fire Marshall Title 19, NFPA 701 2105 Large Scale, ASTME 84-81 A Flame Spread Rating Class A	ASTM E84 Class A, B1 TO DIN 4102		CALTB102.2-2, IMO MSC.307 (88), FAA FAR 25.853(A), MVSS 302	CALTB102.2-2, IMO MSC.307 (88), FAA FAR 25.853(A), MVSS 302
	Light Values, Test Method	ASHRAE 74 1988/ ISO EN 416	ASHRAE 74 1988/ ISO EN 417	ASHRAE 74 1988' ISO EN 418	ASHRAE 74 1988/ ISO EN 419	ASHRAE 74 1988/ISO EN 420	ASHRAE 74 1988/ ISO EN 417		ASTM D 1003			
Reflectar	Transmission, nce, Absorption	Transmission 9% Reflection 83/81 absorption 8/10	Transmission 7% Reflection 85/82 absorption 8/11	Transmission 6% Reflection 84/82 absorption 10/12	Transmission 5% Reflection 86/84 absorption 9/11	Transmission 3% Reflection 86/84 absorption 11/13	Transmission 0% Reflection 86/84 absorption 8/11		87%, 12%, <1%			
Seams (Recon	nmended Style)	Lap	Lap	Lap	Lap	Lap	Lap		Lap			
Constr	uction Method	RF, hot air, wedge	RF, hotair, wedge	RF, hot air, wedge	RF, hot air, wedge	RF, hot air, wedge	RF, hot air, wedge	Laminate	Wedge Weld/ Heatseal			
UsefulTemp	perature Range	-40 to 158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F	-40 to 158 F		-20 F to 125 F			