



Technical Data Specifications for Guard-All Building Solutions LLC

**Guard-All Building Solutions LLC
1010 Regal Row
Dallas, Texas 75247**



Nova-Shield II™ with ArmorKote™
FRU88X-6 (4 mil)



Heavyweight fabric for applications requiring flame retardants and UV stability, such as membrane structures and alternate daily landfill covers. The scrim is produced in a special weaving pattern to enhance thickness, flatness, abrasion resistance, and tear properties. The proprietary coating is used to enhance abrasion resistance, flex resistance, seam strength, UV resistance and longevity.

FABRIC SPECIFICATIONS

WEAVE	Woven HDPE scrim using natural FR / UV tapes
COATING	4 mil average each side (95 g/m ² /side)
COLOUR	Off-White, Green, Blue, Red, Sandstone and other colors available
WEIGHT	12.0 oz/yd ² (407 g/m ²) +/-5%
THICKNESS	23 mils (0.59mm) ATSM D5199-99

PERFORMANCE

GRAB TENSILE	Warp 360 lb 1600 N	Weft 350 lb 1555 N	ASTM D5034-95
STRIP TENSILE, lb/inch (N/5cm)	Warp 265 (2356)	Weft 235 (2178)	ASTM D5035-95
TRAPEZOIDAL TEAR	Warp 95 lb 422 N	Weft 90 lb 401 N	ASTM D4533-04
TONGUE TEAR	Warp 110 lb 489 N	Weft 110 lb 489 N	ASTM D2261-96
MULLEN BURST	675 psi 4657 kPa		ASTM D3786-01
ACCELERATED UV WEATHERING ¹	>90% strength retention after 2000 hrs exposure @ 0.77 W/m ² /nm, or 1200 hours exposure @ 1.35 W/m ² /nm.		ASTM G151-00 ASTM G154-04
ACCELERATED NATURAL WEATHERING	>80% strength retention after 5 Florida Standard Years ²		ASTM G90-98
LOW TEMPERATURE BEND	-60°C		ASTM D2136-94

¹Q.U.V. [A-340 Lamps]: 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C ²1333 MJ

FR & UV PERFORMANCE

This product meets the requirements of NFPA 701-1989 (large and small scale) and 1996 (tests 1 & 2), CAN/ULC S109-M87 (small and large scale), CAN/ULC S102-03, CAN/ULC S102.2-03, ASTM E84-00a (Class 1), UBC31-1, California Fire Marshall (F-51405).

ROLL SPECIFICATIONS

CORES	4 inch I.D. or 5 inch I.D. available
WIDTH	Up to 150 inches (-0, + 0.5) as ordered
LENGTH	Minimum 250 yds/roll (app. 750 lbs/roll @144"); up to 1000 yds/roll

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SHEERFILL® Architectural Membrane



SHEERFILL® is the trademark for a family of membrane used in permanent structures. The composite is made of fiberglass and polytetrafluoroethylene (PTFE). SHEERFILL® products are available in a range of strengths and light transmission levels, providing the user with a choice of membranes to cover virtually any size structure from a full-sized stadium to a relatively small skylight. All SHEERFILL® membranes conform to rigid fire and building codes for permanent buildings.

Typical Properties¹

Property	Value (I-HT)	Value (II-HT)	Value(V)	Method
Coated Fabric Weight (oz./yd.²)	45.5 nominal	38.5 nominal	29 nominal	ASTM D4851-88
Thickness (mils)	36.0 nominal	30.0 nominal	22 nominal	ASTM D4851-88
Breaking Strength (lb./in.) (Strain Rate: 2 in./min.)				ASTM D4851-88
Dry, Warp	975 min avg	785 min avg	520 min avg	
Dry, Fill	900 min avg	560 min avg	590 min avg	
Breaking Strength (lb./in.) After crease fold (lb./in.)				ASTM D4851-88
Dry, Warp	760 min avg	645 min avg	355 min avg	
Dry, Fill	735 min avg	395 min avg	380 min avg	
Trapezoidal Tear (lb.)				ASTM D4851-88
Warp	95 min avg	70 min avg	35 min avg	
Fill	120 min avg	65 min avg	60 min avg	
Solar Transmission (%)	10 nominal	12.5 nominal	17.5 nominal	ASTM E424
Solar Reflectance (%)	70 nominal	70.3 nominal	72.5 nominal	ASTM E424
Burning Characteristics				
Flame Spread	5 max	5 max	0 max	ASTM E424
Smoke Generation	5 max	10 max	0 max	Tunnel Test
Incombustibility of Substrates	Pass	Pass	Pass	ASTM E136
Fire Resistance of Roof Coverings Burning Brand	Class A	Class A	Class A	ASTM E108
Flame Resistance	Pass	Pass	Pass	NFPA 701, Small Scale
Color	White (after exposure to sunlight)			
Reinforcement Construction	Warp B150 4/3, Fill B150 4/3-Count W18 x F19	Warp B150 4/2, Fill B150 4/2-Count W24 x F19.5	Warp B150 2/2, Fill B150 2/3- Count W32 x F23	

¹ Values listed are for virgin roll goods only. Appropriate industry safety factors need to be used to account for the in-service effects of handling, weathering, etc.



SHEERFILL® Mesh Architectural



FabriTec Mesh is a private labeled product for the exclusive use of USA SHADE & Fabric Structures in shade applications. The composite is made of fiberglass and polytetrafluoroethylene (PTFE). The mesh construction allows a high level of lighting to enter the space and allows air to circulate through the fabric.

Typical Physical Properties¹

Property	Value	Method
Coated Fabric Weight (oz./yd. ²)	21 nominal	ASTM D4851-88
Breaking Strength (lb./in.) (Strain Rate: 2 in./min.)		ASTM D4851-88
Dry, Warp	700 min. avg	
Dry, Fill	750 min. avg.	
Trapezoidal Team (lb.)		ASTM D4851-88
Warp	210 min. avg.	
Fill	210 min. avg.	
Count (yds./in.)		ASTM D4851-88
Warp	15 min. avg.	
Fill	15 min. avg.	
Weave Style	Mock Leno	-
Open Area (%)	20 nominal	-
Translucency (%)	34 nominal	-

¹ Values listed are for virgin roll goods only. Appropriate industry safety factors need to be used to account for the in-service effects of handling, weathering, etc.


















Shadesure® and Colourshade® FR

Shadesure® and Colourshade®

The Shadesure® fabric conforms to the testing standards of ASTM E-84, and is available in a wide variety of vibrant colors. This fabric has UV additives to provide superior sun protection, and offers UV and shade protection up to a maximum of 95% depending on color selection (refer to Color Chart below).

The Colourshade® FR fabric is a fire-retardant material that meets the stringent standards set by the NFPA and the State Fire Marshall of California. It offers UV and shade protection up to a maximum of 88% depending on color selection. Available colors: Red, desert sand, terracotta, yellow, green, blue and silver.

		Shade Factor	UV Factor
	White	57%	86%
	Silver	88%	93%
	Yellow	70%	94%
	Arizona	84%	92%
	Desert Sand	80%	92%
	Terracotta	84%	90%
	Green	89%	96%
	Turquoise	83%	92%
	Laguna Blue	92%	96%
	Royal Blue	86%	94%
	Navy Blue	90%	94%
	Red	91%	92%
	Black	95%	96%

Life Expectancy	A minimum of 8 years continuous exposure to the sun
Fading	Minimum fading after 5 years
Tear Strength	Warp 198.4160 lb, Weft 440.9245 lb (90 kg / 200kg)
Burst Strength	34.8091 psi min. (240 kpa min.)
Fabric Mass	2.43-2.58 oz/sqft (190-200 gsm)
Fabric Width	9.8425 ft (3 m)
Roll Length	164.04 ft (50 m)
Roll Dimensions	62.99" X 16.5354" (160 cm x 42 cm)
Roll Weight	± 66 lb (± 30 kg)
Minimum Temperature	-13° F (-25° C)
Maximum Temperature	+ 176° F (80° C)

**FERRARI**

Ferrari® Précontraint®

The Ferrari® Précontraint® textile base material is manufactured using High-Tenacity PES yarns, which range from 1100-2200 Decitex (comparable to 1000-2000 Denier). The base textile is then treated with Fluotop® T2, a calibrated PVDF alloy waterproof coating. This creates a strong, flexible PVC fabric that can be used in numerous outdoor applications.

	702	1002	1202	1302	1502
Warranty	7 Year Limited (additional options available, restrictions apply)	12 Year Limited (additional options available, restrictions apply)	12 Year Limited (additional options available, restrictions apply)	12 Year Limited (additional options available, restrictions apply)	12 Year Limited (additional options available, restrictions apply)
Yarn	PES HT 1100 Dtex	PES HT 1100 Dtex	PES HT 1100/1670 Dtex	PES HT 1100/2200 Dtex	PES HT 1670/2200 Dtex
Total Mass	750g/sqm, 22oz/sqyd	1050g/sqm, 31oz/sqyd	1050g/sqm, 31oz/sqyd	1350g/sqm, 40oz/sqyd	1500g/sqm, 44oz/sqyd
Width	178 cm	178 cm	178 cm	178 cm	178 cm
Tensile Strength	Warp 323 lb, Weft 310 lb	Warp 440 lb, Weft 435 lb	Warp 580 lb, Weft 580 lb	Warp 880 lb, Weft 740 lb	Warp 1020 lb, Weft 810 lb
Tear Strength	Warp 40 lb, Weft 30 lb	Warp 60 lb, Weft 56 lb	Warp 100 lb, Weft 60 lb	Warp 155 lb, Weft 130 lb	Warp 235 lb, Weft 165 lb
Surface Treatment	Fluotop® T2	Fluotop® T2	Fluotop® T2	Fluotop® T2	Fluotop® T2
Coating Thickness	240 microns	350 microns	270 microns	300 microns	300 microns
Total Thickness	0,52 mm	0,78 mm	0,78 mm	1,02 mm	1,14 mm
Light Transmission	14%	8%	10%	6%	6%
UV Transmission	T-UV 0%	T-UV 0%	T-UV 0%	T-UV 0%	T-UV 0%
White Index	82%	82%	82%	82%	82%
Minimum Temperature	- 22° F	- 22° F	- 22° F	- 22° F	- 22° F
Maximum Temperature	+ 158° F	+ 158° F	+ 158° F	+ 158° F	+ 158° F