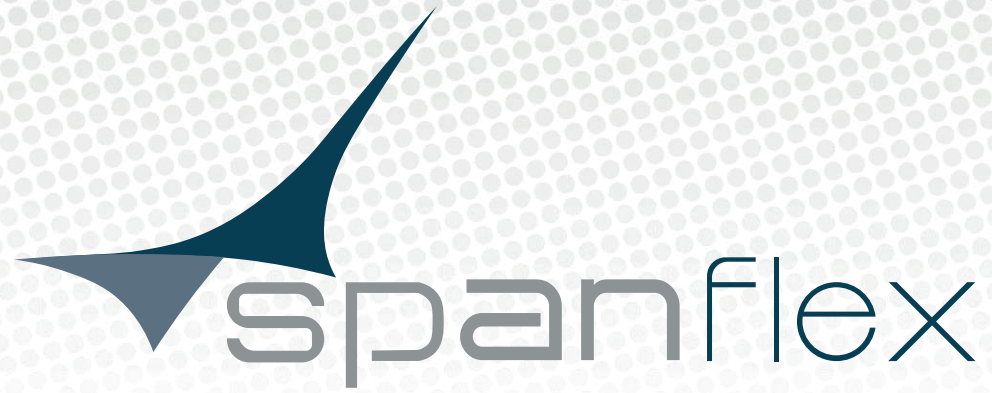
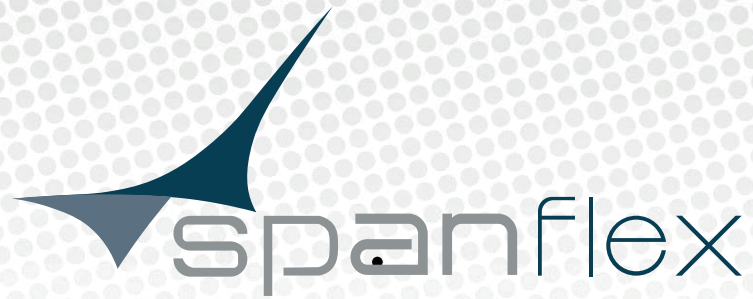




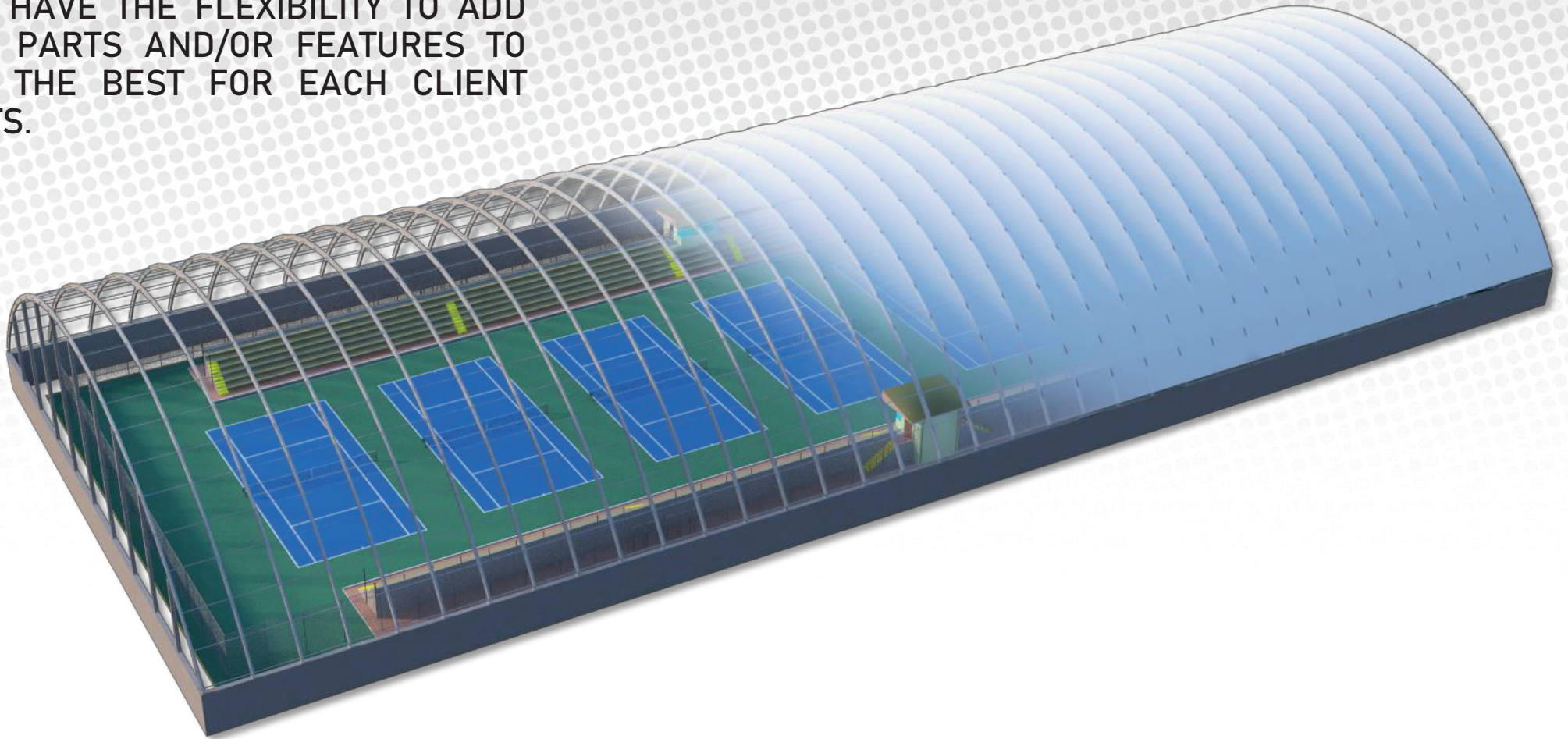


ALUMINUM MODULAR BUILDING

INTRODUCTION



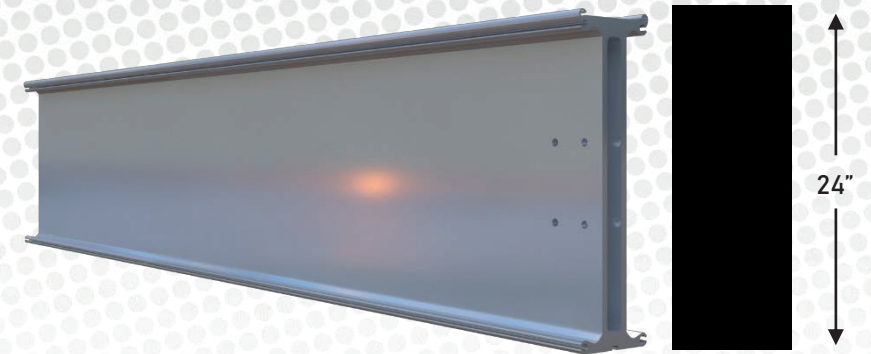
- SPANFLEX STRUCTURES, LLC OFFERS PREDESIGNED ALUMINUM / FABRIC STRUCTURES AS AN ALTERNATIVE FOR MULTYUSE BUILDINGS. THE BUILDING WAS DESIGNED TO HAVE THE FLEXIBILITY TO ADD AND REMOVE PARTS AND/OR FEATURES TO ACCOMODATE THE BEST FOR EACH CLIENT REQUIREMENTS.



BEAM TYPES



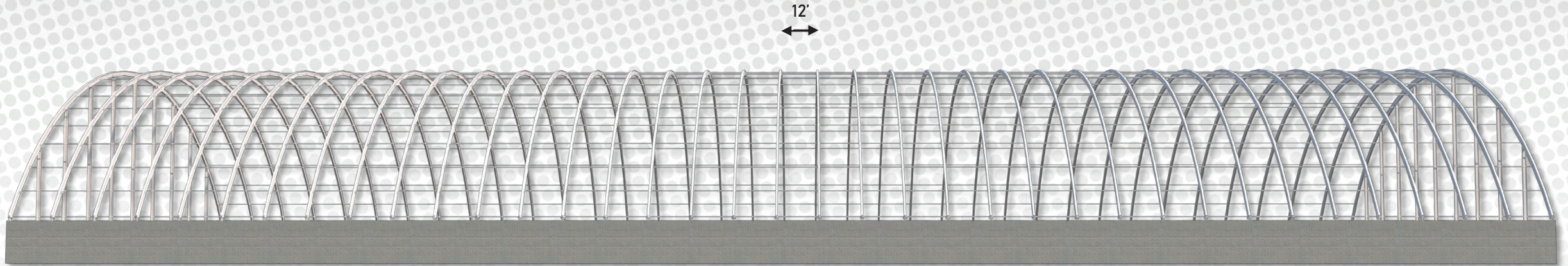
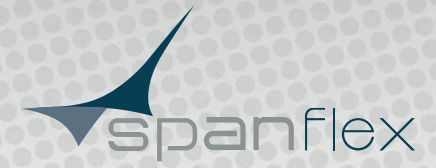
- BEAM B
- NORMALLY APPLIED FOR BUILDINGS BETWEEN 35m TO 48m
- 190 KM/H
- 200 KG/M2



- BEAM A
- NORMALLY APPLIED FOR BUILDINGS BETWEEN 25m TO 35m
- 190 KM/H
- 200 KG/M2

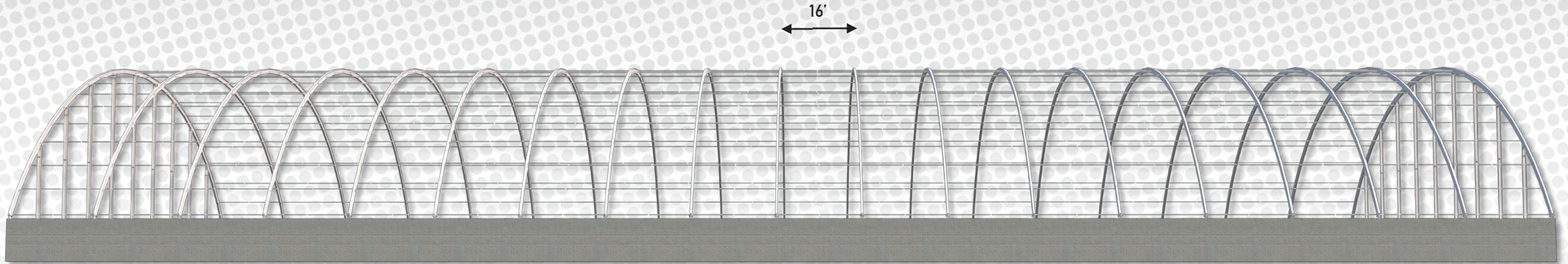
- BEAM C
- NORMALLY APPLIED FOR BUILDINGS BETWEEN 48 m TO 60 m
- 190 KM/H
- 200 KG/M2

INTERCOSTAL DISTANCE



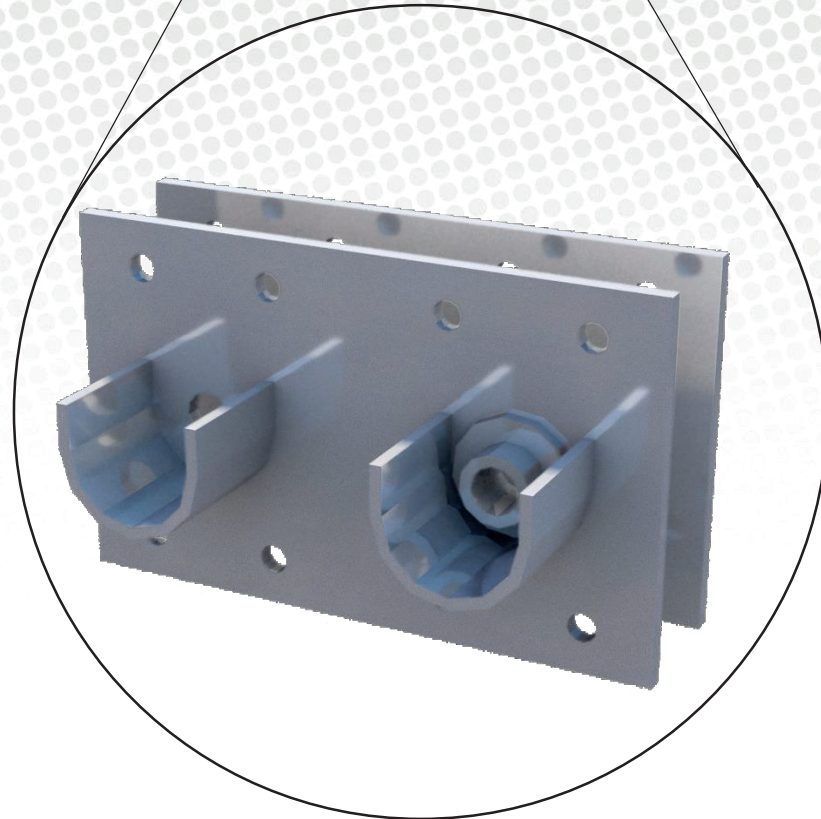
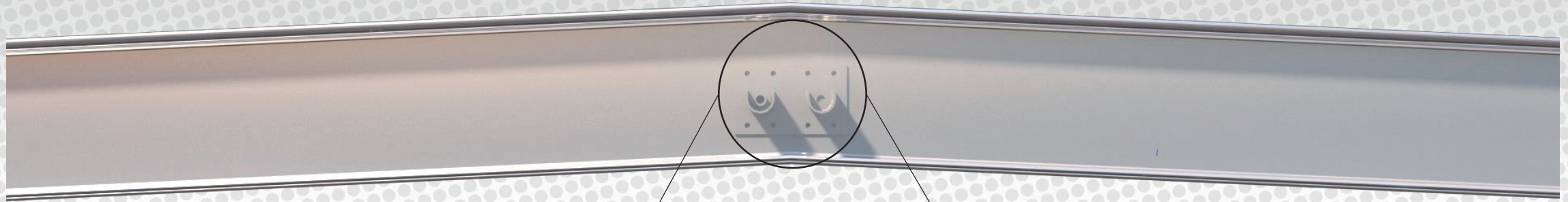
- INTERCOSTAL DISTANCE CAN BE ADJUSTED BETWEEN OUR PREDESIGN XX OR YY ELEMENT.
- INFORMATION WILL BE DETERMINED BY BSS ENGINEERING BASED ON THE DESIGN CRITERIA REQUIRED AND SOIL CONDITIONS

INTERCOSTAL DISTANCE

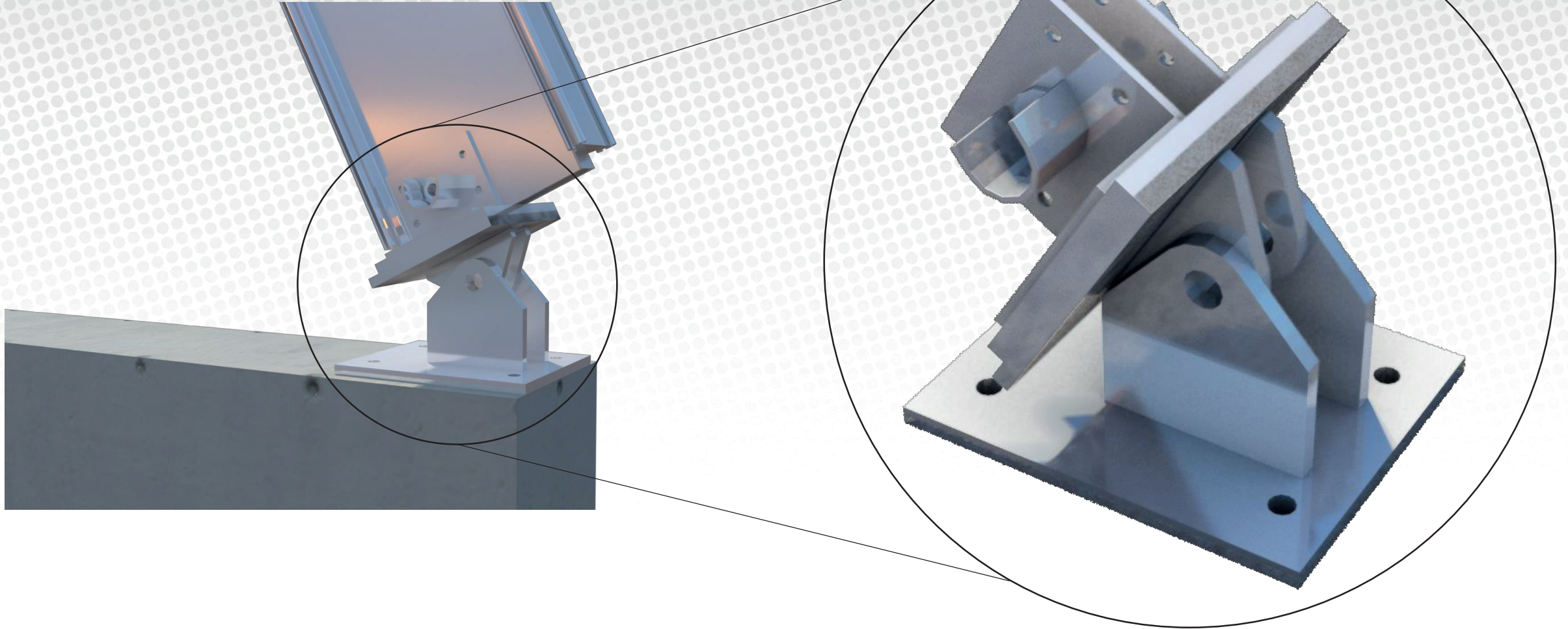
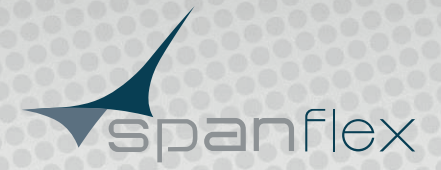


- INTERCOSTAL DISTANCE CAN BE ADJUSTED BETWEEN OUR PREDESIGN XX OR YY ELEMENT.
- INFORMATION WILL BE DETERMINED BY BSS ENGINEERING BASED ON THE DESIGN CRITERIA REQUIRED AND SOIL CONDITIONS

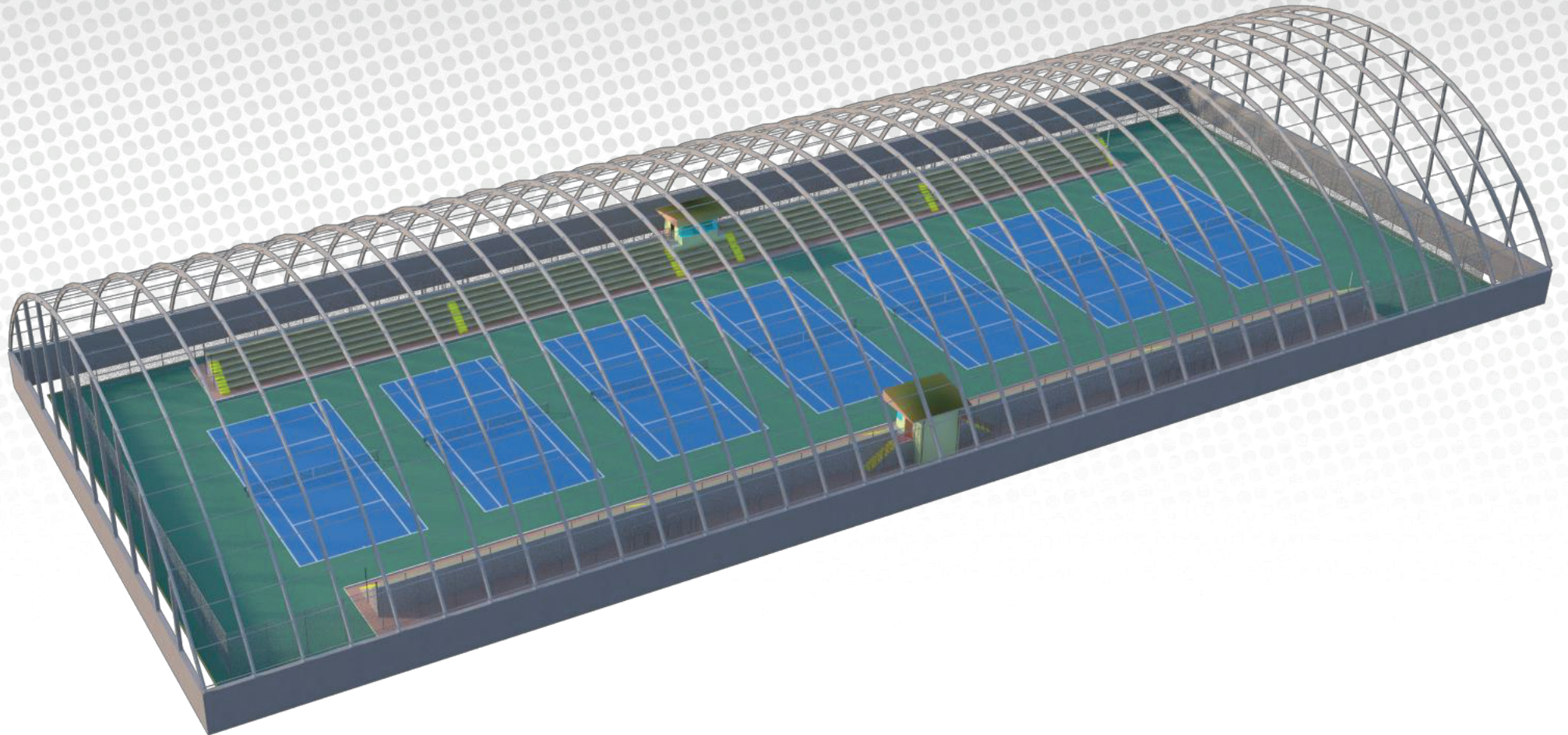
BEAM CONECTION



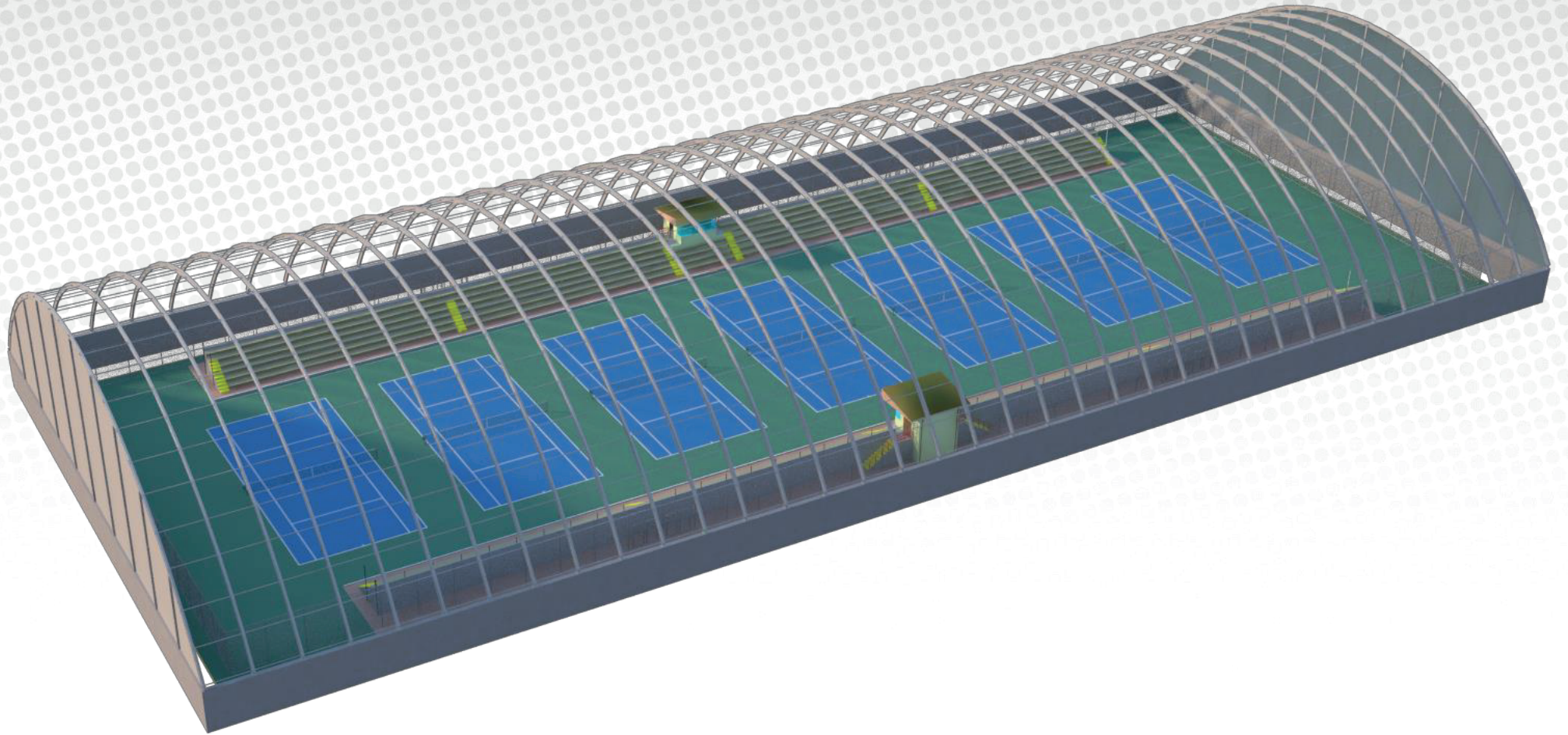
BEAM CONECTION TO WALL



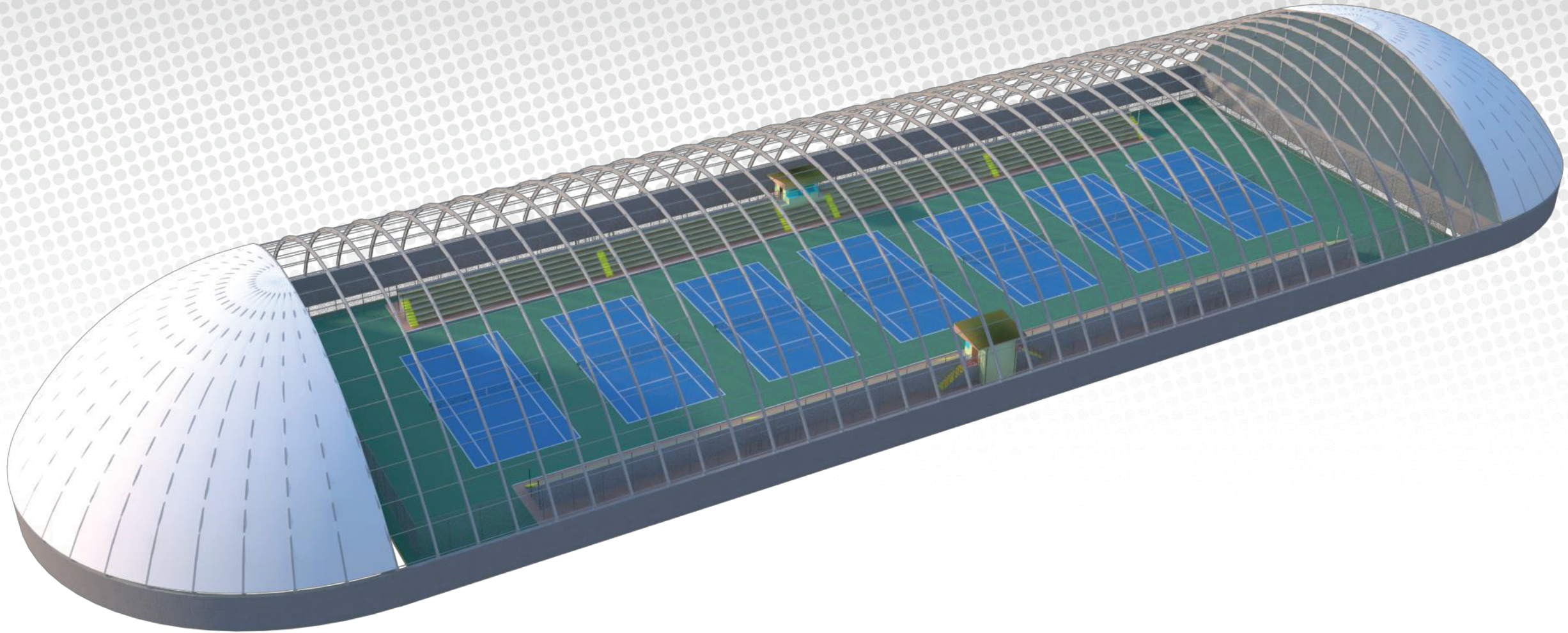
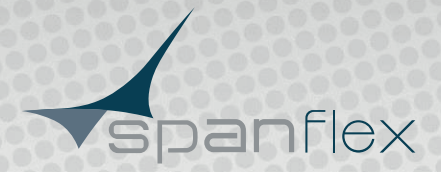
ENDWALL TYPES

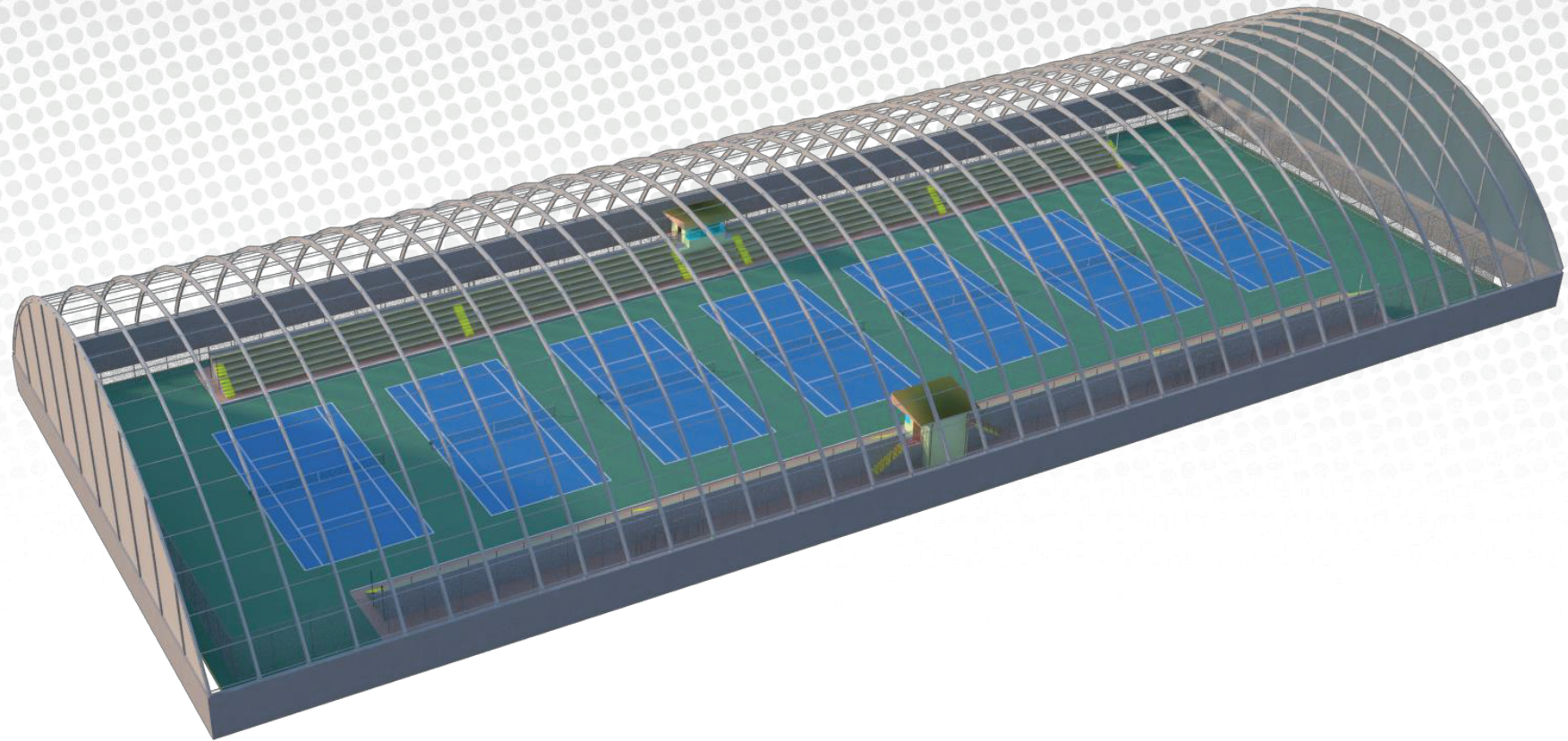


FLAT - ENDWALL



ROUND - ENDWALL



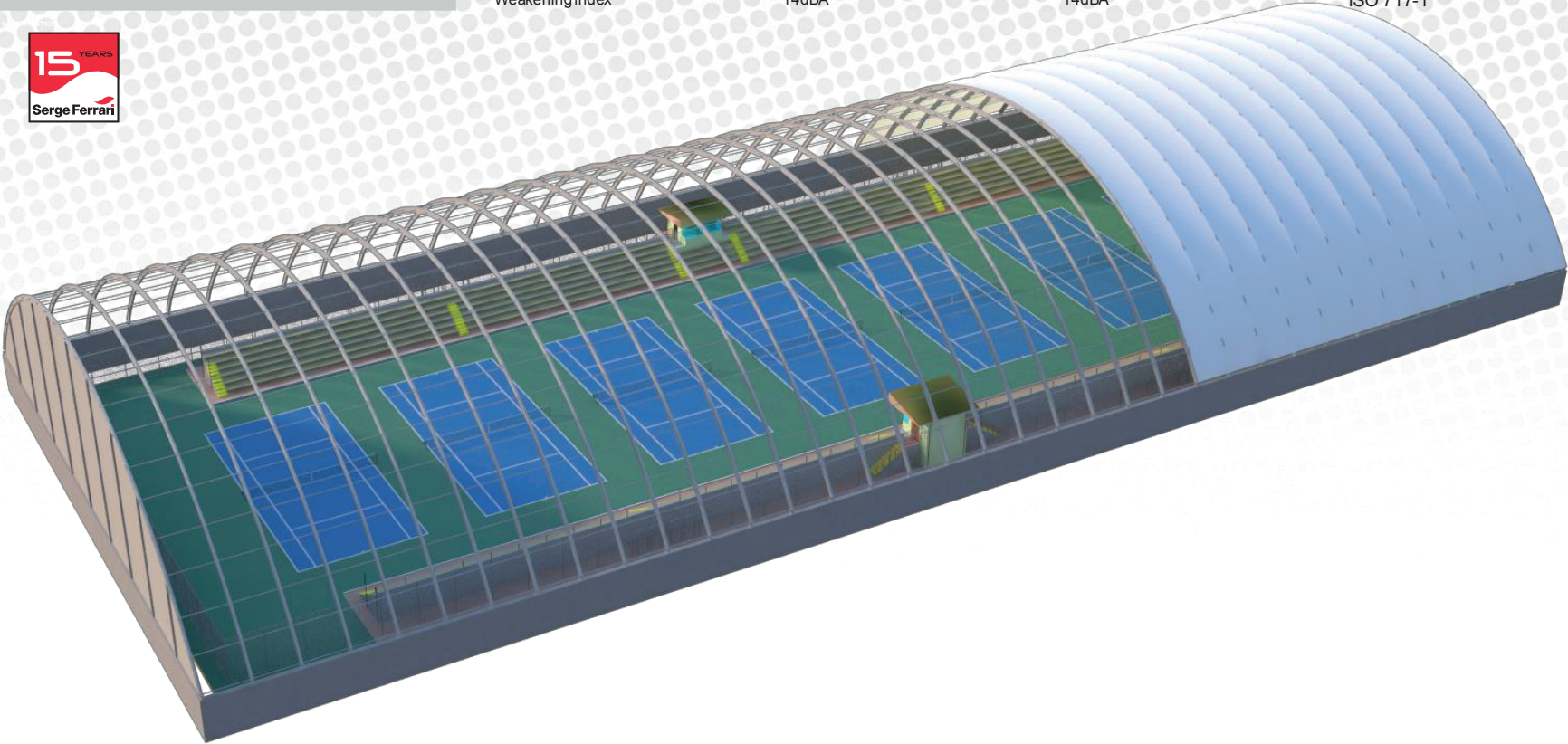


TRANSLUCENT PVC



Technical properties	Précontraint 1002 S2	Précontraint 1002 Fluobp T2	Standards
Application	Mobile or permanent structures	Static and permanent structures	
Surface treatment (top/back)	PVDF / PVDF	HiGH COncentRatiOnPVDF / PVDF	
Making up	Weldable	Weldable after top surface abrasion	
Yarn	PeS Ht 1100 Dtex	PeS Ht 1100 Dtex	
Weight	1050 g/sqm • 31 oz/sqyd	1050 g/sqm • 31 oz/sqyd	en ISO 2286-2
total thickness	0.78 mm	0.78 mm	
Width	180 cm • 70.86 in	178 cm • 70.08 in	(+1mm /-1mm)
tensile strength (warp/weft)	420/400 dan/5cm 480/450 Lbs	420/400 dan/5cm 480/450 Lbs	en ISO 1421 ASTM D 751-00 Cut Strip
tear resistance (warp/weft)	55/50 dan 105/100 Lbs/in	55/50 dan 105/100 Lbs/in	Din 53.363 ASTM D 751-00 trapezoid
Adhesion	12 dan/5cm	12 dan/5cm	en ISO 2411
Flame retardancy			
euroclass	Bs1d1 /en 1350-1	Bs1d1 /en 1350-1	
Rating	12 /nFP 92-507 • 11 /Din 4102-1 • BS 7837 • 11 /nFPA 701 • CSMFt19		
Guarantee*			

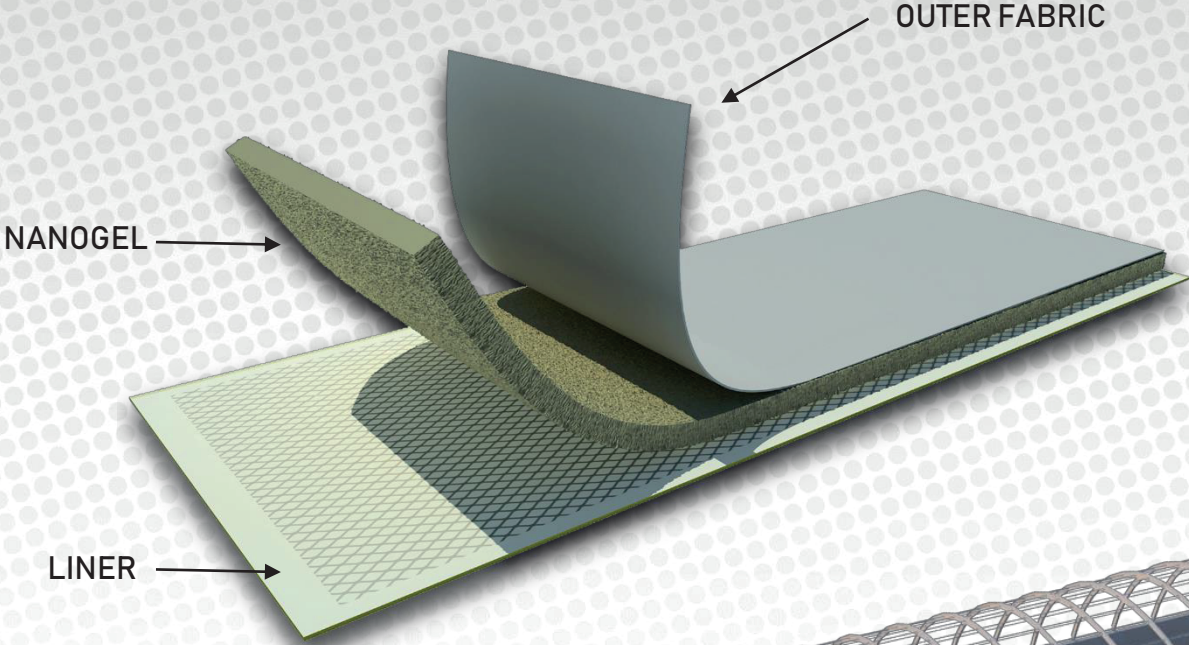
Longevity				
Coating thickness at the top of the yarns	350 microns		350 microns	
Varnish adhesion longevity	QUV A 4000 h	pass	QUV A 4000 h	pass
Micro organism resistance	Method A: degree 0, excellent		Method A: degree 0, excellent	
Solar optical values	ASHRAe	en 410	ASHRAe	en 410
Solar transmittance (ts)	6%	5.5%	6%	6%
Solar reflectance (Rs)	78%	81.5%	78%	82%
Solar Factor (g)	12%	9%	12%	9.5%
Visible light transmittance (tv)	--	4%	--	4.5%
Visible light Reflectance (Rv)	--	91%	--	91.5%
Visible light transmittance		8%		8.5%
UV transmission	t-UV 0%		t-UV 0%	
Global thermal conductivity**				
Vertical / Horizontal position	U= 5.6 / 6.4 W/sqm/°C		U= 5.6 / 6.4 W/sqm/°C	
Acoustic performance				
Weakening index	14dBA		14dBA	
			ISO 717-1	



TRANSLUCENT PVC + NANO GEL



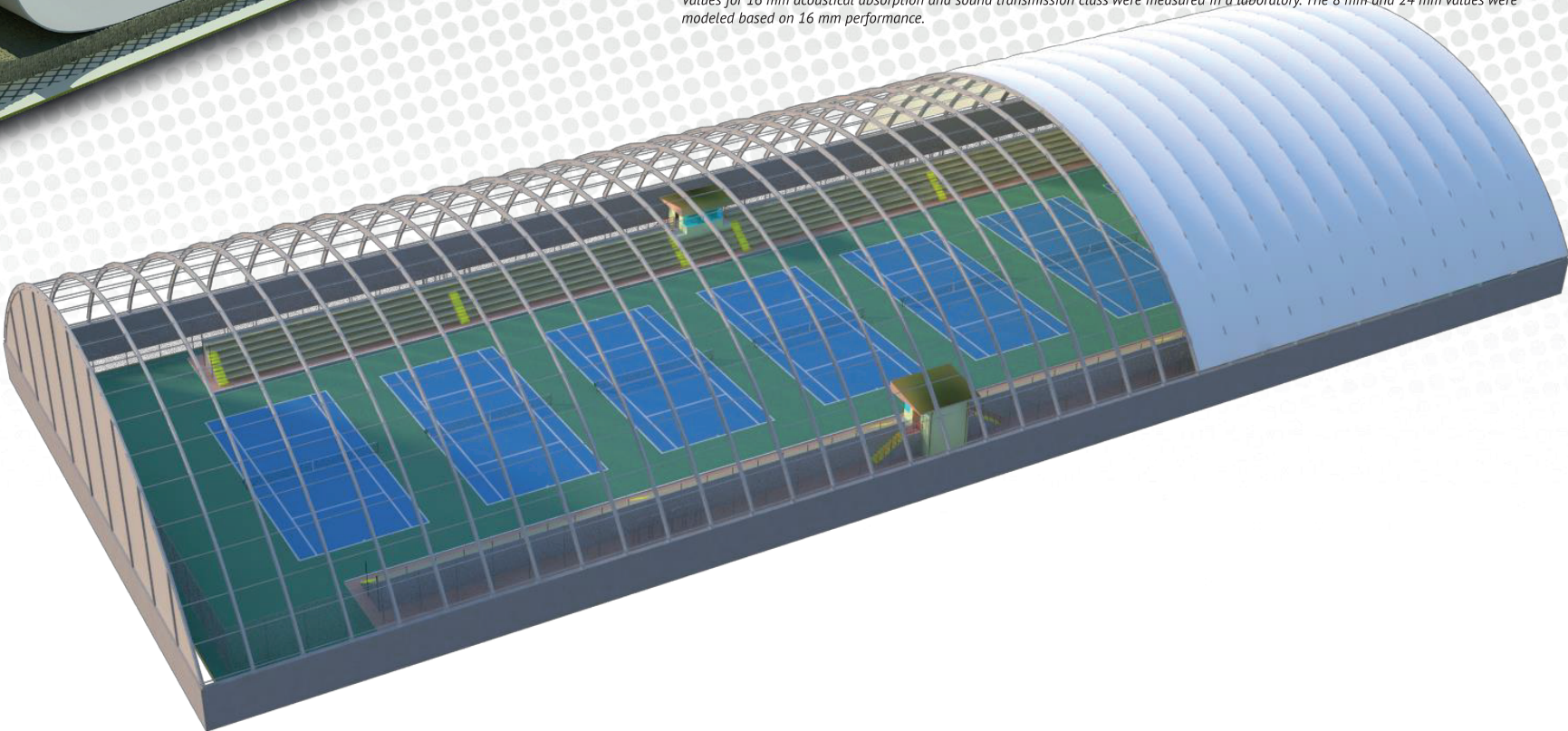
NANO GEL TECHNICAL DATA



Composite Performance Properties

Property	Value	Test Method
Thickness	8 mm	---
Unit Weight	0.46 psf	ASTM D4851.88
R-Value	4.9	ASHRAE 90.1
Solar Heat Gain Coefficient	5.30 %	SHGC = T+(U/h)xA
Acoustical Absorption	0.55 Sabins/ft ²	ASTM C423*
Sound Transmission Class	18.0 dB	ASTM E90*
Visual Transmission	4.3 %	ASTM E424
Fire Performance	Class A	ASTM E108

* Values for 16 mm acoustical absorption and sound transmission class were measured in a laboratory. The 8 mm and 24 mm values were modeled based on 16 mm performance.

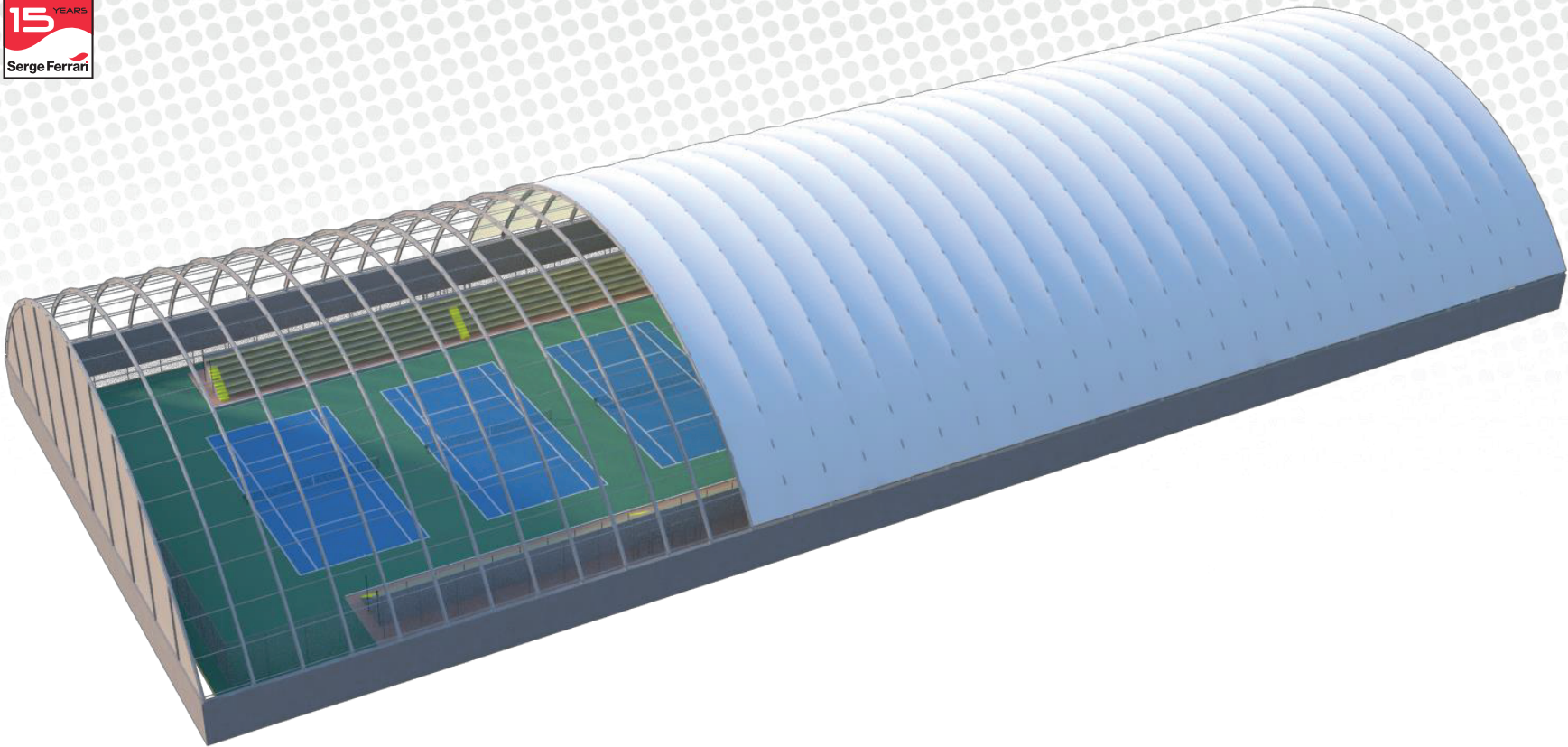


OPAQUE PVC



Technical properties	Précontraint 1002 S2	Précontraint 1002 Fluobp T2	Standards
Application	Mobile or permanent structures	Static and permanent structures	
Surface treatment (top/back)	PVDF / PVDF	HiGH COncentRAtiOnPVDF / PVDF	
Making up	Weldable	Weldable after top surface abrasion	
Yarn	PeS Ht 1100 Dtex	PeS Ht 1100 Dtex	
Weight	1050 g/sqm • 31 oz/sqyd	1050 g/sqm • 31 oz/sqyd	en ISO 2286-2
total thickness	0.78 mm	0.78 mm	
Width	180 cm • 70.86 in	178 cm • 70.08 in	(+1mm /-1mm)
tensile strength (warp/weft)	420/400 dan/5cm 480/450 Lbs	420/400 dan/5cm 480/450 Lbs	en ISO 1421 ASTM D 751-00 Cut Strip
tear resistance (warp/weft)	55/50 dan 105/100 Lbs/in	55/50 dan 105/100 Lbs/in	Din 53.363 ASTM D 751-00 trapezoid
Adhesion	12 dan/5cm	12 dan/5cm	en ISO 2411
Flame retardancy			
euroclass	Bs1d1 /en 1350-1	Bs1d1 /en 1350-1	
Rating	12 /nFP 92-507 • 12 /Din 4102-1 • BS 7837 • 12 /nFPA 701 • CSMFt19		
Guarantee*			

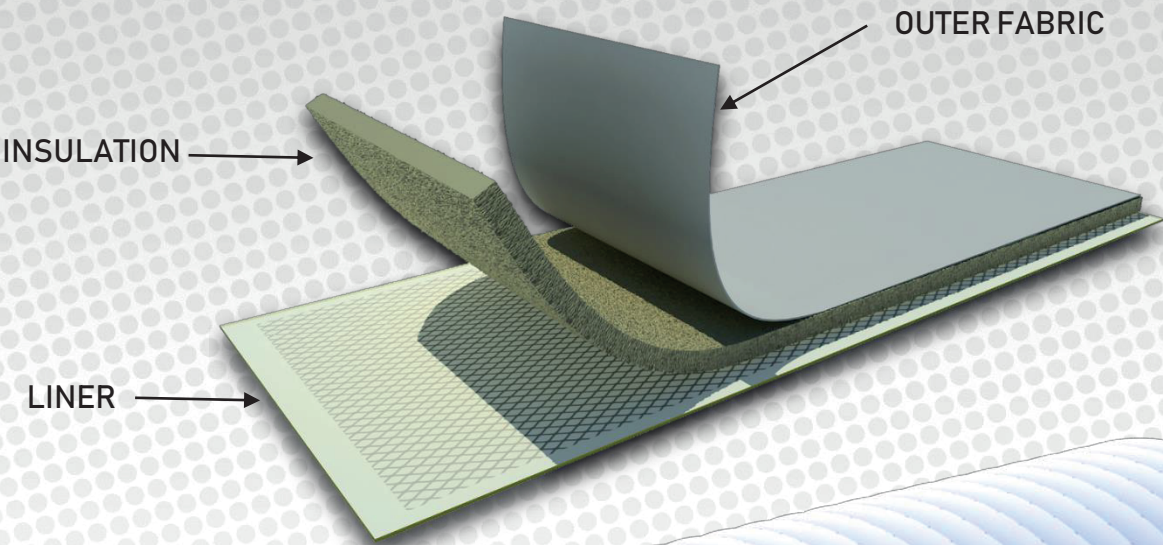
Longevity	350 microns		350 microns		
Coating thickness at the top of the yarns	350 microns		350 microns		
Varnish adhesion longevity	QUV A 4000 h	pass	QUV A 4000 h	pass	Scotch tape test
Micro organism resistance	Method A: degree 0, excellent		Method A: degree 0, excellent		en ISO 846-A
Solar optical values	ASHRAe	en 410	ASHRAe	en 410	
Solar transmittance (ts)	6%	5.5%	6%	6%	
Solar reflectance (Rs)	78%	81.5%	78%	82%	ASHRAe 74-1988
Solar Factor (g)	12%	9%	12%	9.5%	en 410
Visible light transmittance (tv)	--	4%	--	4.5%	
Visible light Reflectance (Rv)	--	91%	--	91.5%	
Visible light transmittance		8%		8.5%	nFP 38511 (diffus-diffus)
UV transmission	t-UV 0%		t-UV 0%		en 410
Global thermal conductivity**					
Vertical / Horizontal position	U= 5.6 / 6.4 W/sqm/°C		U= 5.6 / 6.4 W/sqm/°C		
Acoustic performance					
Weakening index	14dBA		14dBA		ISO 717-1



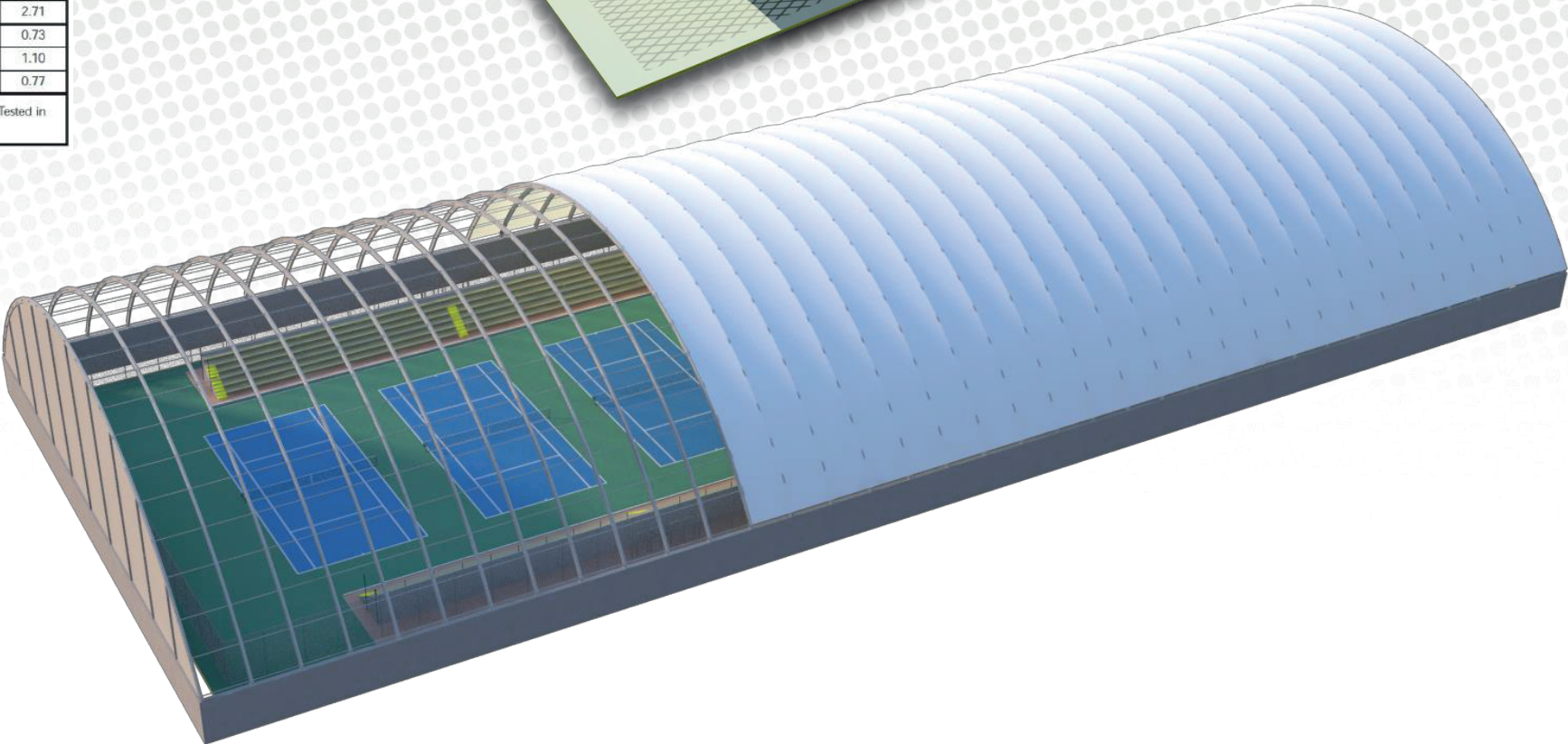
OPAQUE PVC + INSULATION



THERMAL PERFORMANCE										
Type	Density		Thickness		K-Value		C-Value		R-Value	
	pcf	kg/m ³	in.	mm	Btu·in h·ft ² ·°F	W m ² ·°C	Btu h·ft ² ·°F	W m ² ·°C	R	RSI
501	0.60	9.6	1½	38	0.32	0.046	0.21	1.21	4.7	0.83
			2	51			0.16	0.91	6.3	1.10
			3	76			0.11	0.61	9.4	1.65
			4	102			0.08	0.45	12.5	2.20
751	0.75	12.0	1½	38	0.29	0.042	0.19	1.10	5.2	0.91
			2	51			0.15	0.82	6.9	1.21
			3	76			0.10	0.55	10.3	1.82
			4	102			0.07	0.41	13.8	2.43
1001	1.00	16.0	1	25	0.26	0.037	0.26	1.48	3.8	0.68
			1½	38			0.17	0.98	5.8	1.02
			2	51			0.13	0.74	7.7	1.35
			3	76			0.09	0.49	11.5	2.03
			4	102			0.07	0.37	15.4	2.71
1501	1.50	24.0	1	25	0.24	0.035	0.24	1.36	4.2	0.73
			1½	38			0.16	0.91	6.3	1.10
2001	2.00	32.0	1	25	0.23	0.033	0.23	1.31	4.3	0.77
Thermal conductance (C) and resistance (R) values are derived from the material thermal conductivity (k) value. Tested in accordance with ASTM C 518 and/or ASTM C 177 at 75° F (24° C) mean temperature.										



ACOUSTICAL PERFORMANCE								
Product		Absorption Coefficients @ Octave Band Center Frequencies (Hz)						NRC
Type	Thickness in. mm	125	250	500	1000	2000	4000	
501	1½ 38	0.21	0.49	0.71	0.79	0.80	0.80	0.70
	2 51	0.23	0.62	0.84	0.87	0.85	0.87	0.80
	4 102	0.51	0.92	1.01	0.93	0.95	1.06	0.95
751	1 25	0.14	0.33	0.64	0.77	0.83	0.86	0.65
	1½ 38	0.17	0.45	0.78	0.84	0.92	0.93	0.75
	3 76	0.36	0.82	1.02	1.00	0.96	1.01	0.95
1001	1½ 38	0.21	0.53	0.79	0.85	0.85	0.87	0.75
	2 51	0.28	0.69	0.94	0.91	0.90	0.93	0.85
Sound absorption tested in accordance with ASTM C423 using Type A mounting per ASTM E795								



TRANSPARENT (ETFE)

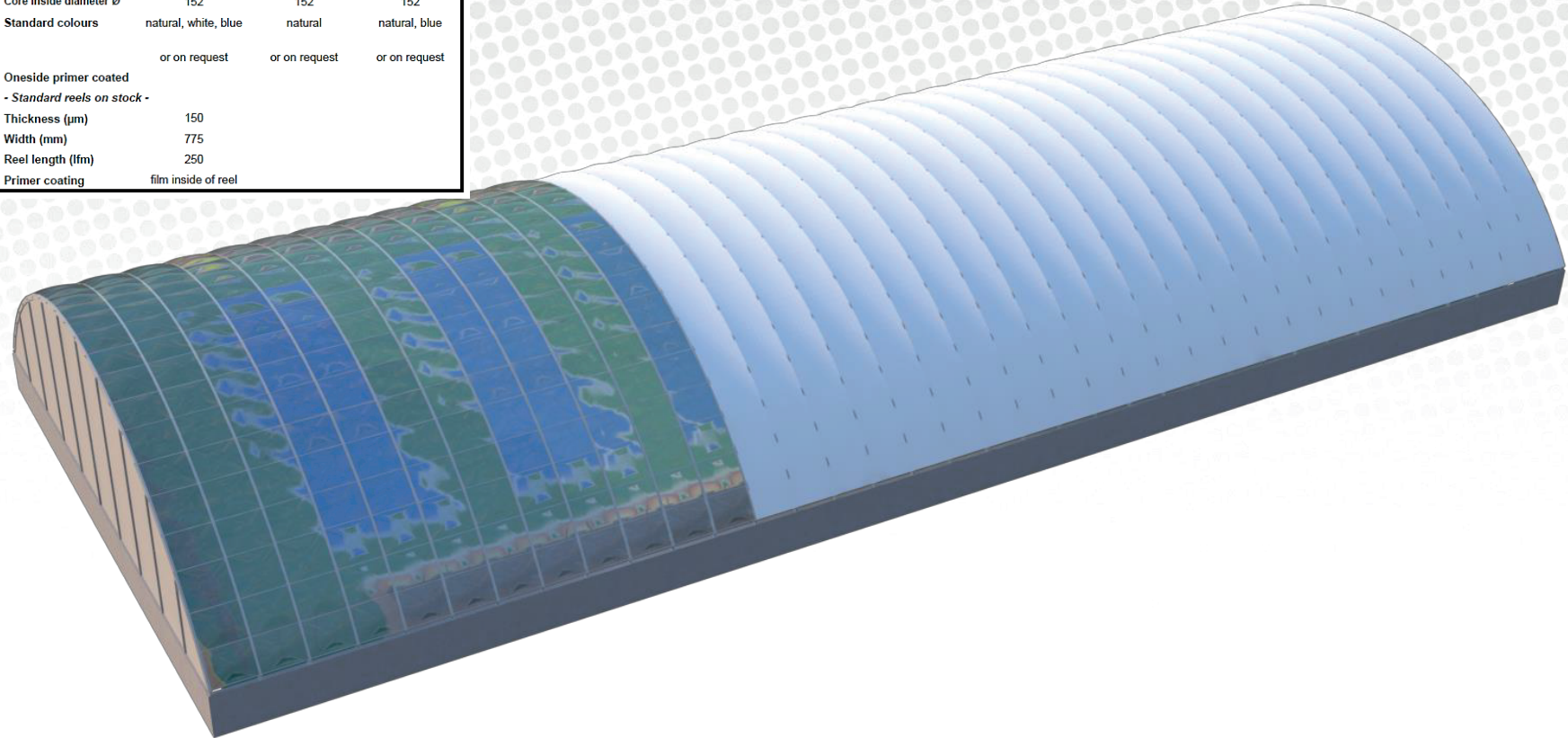
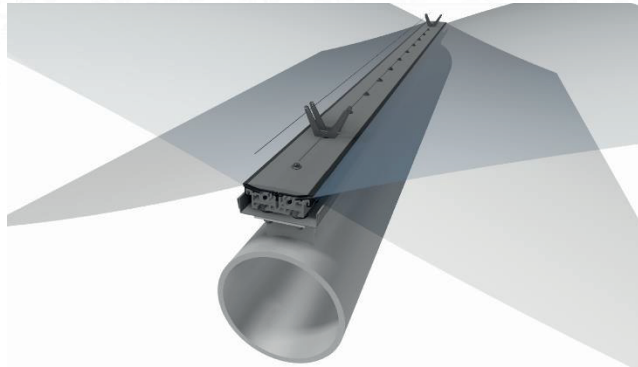


Properties	Unit	Test method	Typical values		
Film type			6235	6235 J	200
Thickness	µm	DIN 53370	25-250	25-250	12-50
Tolerance	µm	DIN 53370	≤ 50µm: ±3µm; >50µm: ±5% vom Sollwert		
Tensile strength					
longitudinal	N/mm²	DIN EN ISO	> 40	> 40	> 40
transversal	N/mm²	527-1	> 40	> 40	> 40
Elongation at break					
longitudinal	%	DIN EN ISO	> 300	> 300	> 300
transversal	%	527-1	> 300	> 300	> 300
Tensile at 10% elong.					
longitudinal	N/mm²	DIN EN ISO	> 20	> 18	> 20
transversal	N/mm²	527-1	> 20	> 18	> 20
Modulus in tension					
longitudinal	N/mm²	DIN 53457	1000	800	1000
transversal	N/mm²	DIN 53457 0,5% Sekante	1000	800	1000
Tear strength					
longitudinal	N/mm²	DIN 53363	> 300	> 300	> 300
transversal	N/mm²	on trapezium	> 300	> 300	> 300
Shrinkage					
longitudinal	%	150°C/10 min.	0-5	0-5	0-5
transversal	%	150°C/10 min.	0-5	0-5	0-5
Density	g/cm³	DIN 53479	1,75	1,75	1,75
Melt range	°C	DSC 16°K/min.	270 ± 10	260 ± 10	270 ± 10
Light transmission (total)	%	DIN 5036-Ulbricht sphere	> 90 % ⁽¹⁾		
Shore-D-hardness		DIN 53565	70	66	67
Oxygenindex	%	ASTM D 2863-70	> 30	> 30	> 30
Flame retardance		UL 94	V-0	V-0	V-0
		DIN 4102	61 ⁽²⁾	-	-
Weather stability		DSET- Laboratories Phoenix / Arizona	10 years outdoor weathering without changing of properties	-	-
Thermal service range	°C	ASTM-D-2863 DIN 53207	- 200°C bis + 150°C		

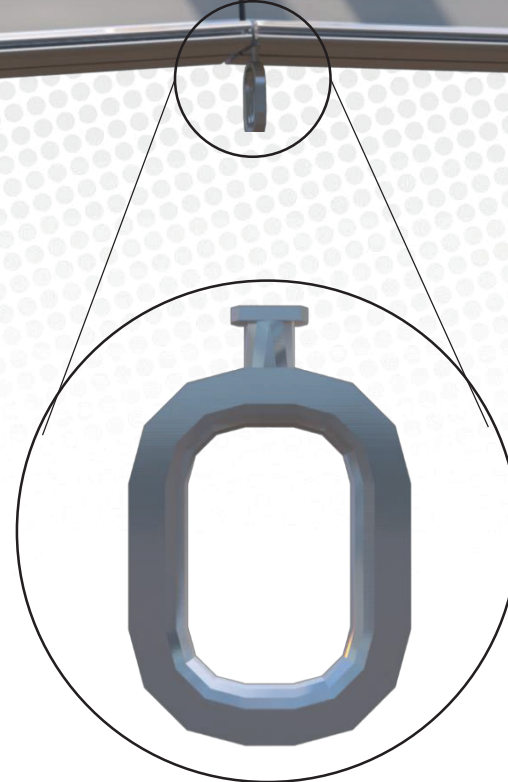
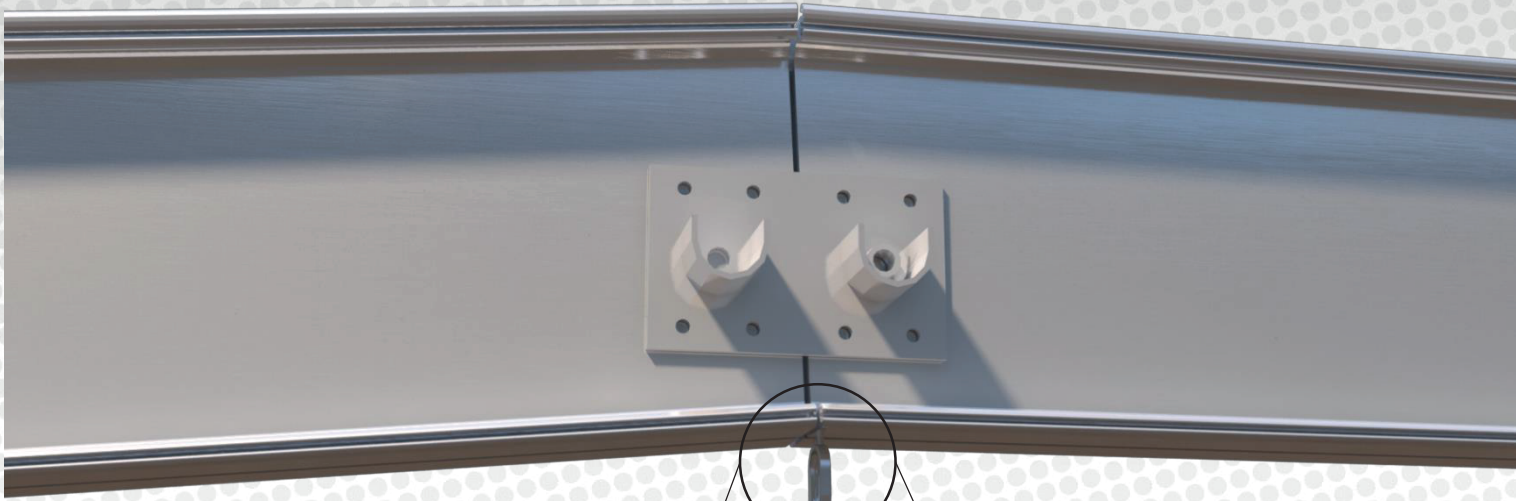
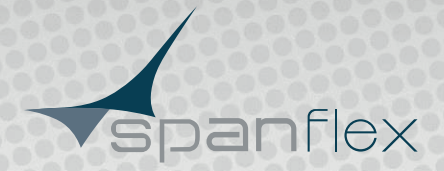
⁽¹⁾ Measured on 200 µm film

⁽²⁾ Awarded with „Allgemeines bauaufsichtliches Prüfzeugnis“ as a flame retardant building material form Ott-Graf- Institut, Universität Stuttgart

Typ	6235	6235 J	200
Thickness range (µm)	25 – 250	25 – 250	12 – 50
Standard width (mm)	1300 / 1550 max	1300 / 1550 max.	1300 / 1550 max. < 20 µm: max. 1500!
Min. width for slitting (mm)	10	On request	
Standard-Reel length (lfm)			
Thickness 12 µm	/	/	3000
Thickness 15 µm	/	/	3000
Thickness 20 µm	/	/	1500/3000
Thickness 25 µm	1000	1000	1000
Thickness 50 µm	750	750	750
Thickness 100 µm	500	500	/
Thickness 150 µm	250	250	/
Thickness 200 µm	200	200	/
Thickness 250 µm	200	200	/
Core inside diameter Ø	152	152	152
Standard colours	natural, white, blue or on request	natural or on request	natural, blue or on request
Oneside primer coated			
- Standard reels on stock -			
Thickness (µm)	150		
Width (mm)	775		
Reel length (lfm)	250		
Primer coating	film inside of reel		



ACCESSORIES (HANGER)



ACCESSORIES (LIGHTING)



ACCESSORIES (INDUSTRIAL FAN)



ACCESSORIES (DOORS & WINDOWS)



