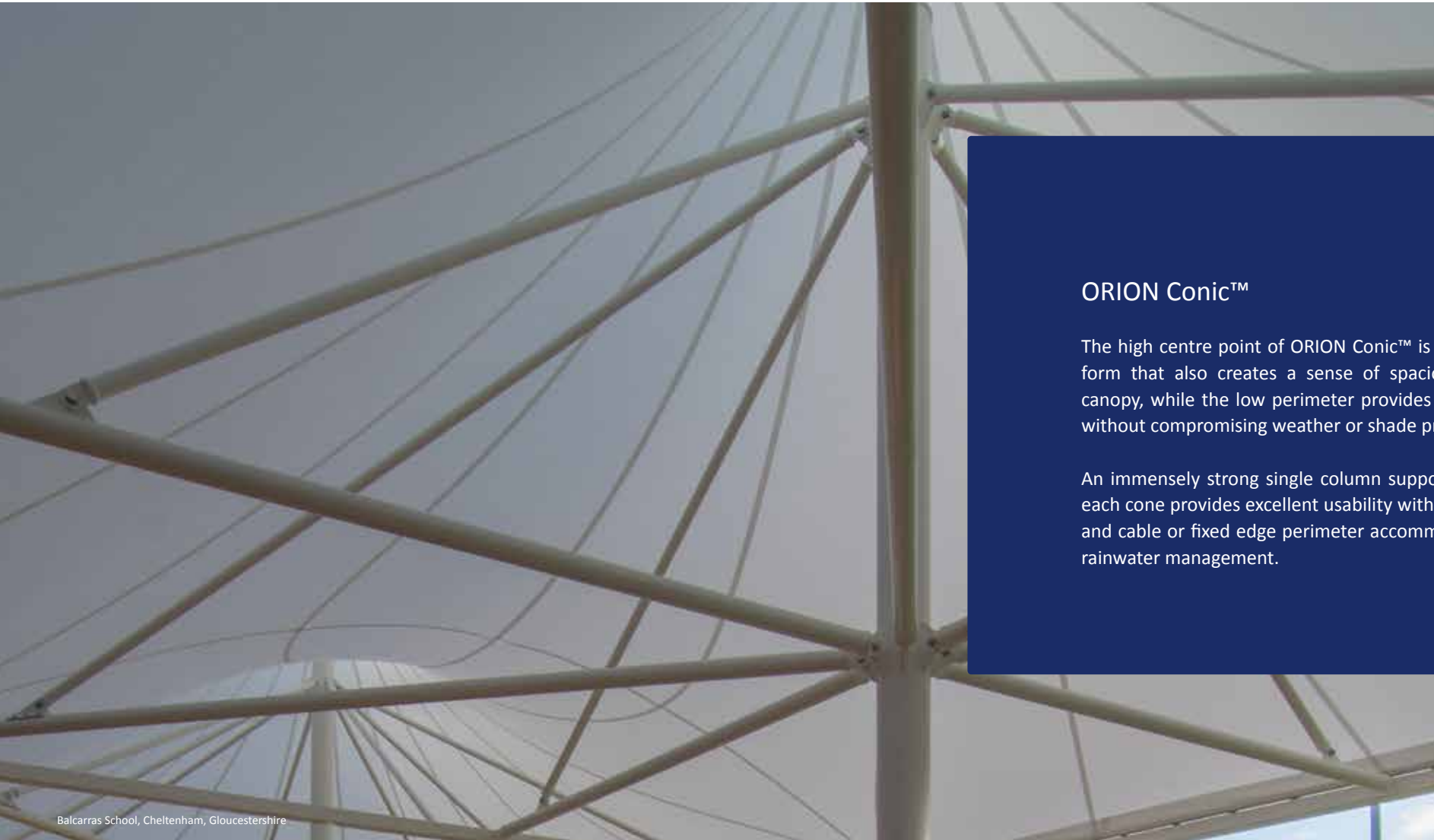


ORION Conic™ : Tensile Structures





Balcarras School, Cheltenham, Gloucestershire

ORION Conic™

The high centre point of ORION Conic™ is a striking aesthetic form that also creates a sense of spaciousness under the canopy, while the low perimeter provides great all day cover without compromising weather or shade protection.

An immensely strong single column support at the centre of each cone provides excellent usability within the covered area and cable or fixed edge perimeter accommodates the canopy rainwater management.



Kettering Buccleuch Academy, Kettering, Northamptonshire

Tensile Structures

The flexible design aesthetic and distinctive elegant form of a tensile structure results from those characteristics unique to membrane tension.

In daylight, fabric membrane translucency provides diffused, naturally lit spaces, while at night, artificial lighting can be used to create an ambient exterior luminescence. The lightweight nature of tensile membrane design requires less structural steel compared with conventional roof coverings, enabling clear spans of column-free space.

The durability and longevity of tensile membrane design is well proven with canopy structures installed in climates ranging from arctic cold to scorching desert heat. ORION™ fabric membrane manufacture complies with all relevant national regulations for fire resistance.

ORION™ tensile structures use a PVC based architectural fabric manufactured with a PVDF self-cleaning top lacquering layer. These advanced fabrics have a lifespan equal to alternative covering materials with a 25 year design life, covered by a manufacturer backed warranty for up to 10 years dependant on specification.

"We are absolutely delighted with our new outside canopy. It has transformed an otherwise lightly used area of the school, into a highly useable and versatile space."

Dominic Burke, Headteacher, Balcarras School



Confidence in Accreditation

Streetspace design, manufacturing and construction processes are accredited to ISO9001:2008, ISO14001 and BS EN 1090 CE EXC 2 giving you confidence in each element of the project realisation.



Project Scope

We take the worry out of your canopy installation with comprehensive project capability to undertake enabling groundworks, surfacing and landscaping. This single point accountability results in less projects for you to manage.



Warranty & Aftercare

Project handover issues all completion documents; O&M Manuals, H&S File and Warranty. Opting for our annual inspection and report programme provides you with peace of mind that your canopy is maintained correctly over the long term.



Swift Installation

Offsite manufacture enables your project to be installed with minimum disruption. ORION™ structures are typically installed in 2-3 days and site fitting over two subsequent weekends can be accommodated.



One-Piece Fabric Membrane

With a one-piece element ensuring there are no joins in the cover to trap dirt or moisture and advanced fabric coatings providing a super smooth surface, the level of maintenance required to keep these structures looking their best is reduced.



Great Aesthetics

The striking design form, minimal steel frame and smooth architectural membrane delivers a modern, stylish look to break the hard surfaces of conventional materials.



UV Protection

The textile coating on our PVC membranes protects from more than 99% of the sun's UVA and UVB rays ensuring the valuable time spent outdoors is safe from this potential harm.



Rainwater Management Options

In fixed edge design, ORION Conic™ is fitted with galvanised and powder coated steel guttering to the canopy perimeter providing rainwater control with outflow position options. Cable edge perimeter design channels rainwater to the membrane tension points for dispersion.



Sound Absorption Qualities

With membrane fabrics providing a soft element within the canopy design, the sound of rain, voices and echo are absorbed to a much greater extent than a hard roof covering such as polycarbonate or steel sheet.



Positive Light Transmission

The combination of 'no-glare' ambience with excellent light transmission is a great feature of fabric membranes, allowing natural light to illuminate the area beneath the canopy and eliminating the need for lighting during the day.



High Sunlight Reflectivity

Where tensile membrane structures are located close to adjacent buildings, high levels of sun reflectivity and low absorption of sunlight under the canopy, result in a lower energy requirement to maintain room temperatures.



Minimal Column Interference

The single, central support column of ORION Conic™ design provides excellent usability from the space under your new canopy. Where similar products are based on a corner post design layout this benefit is greatly reduced.



Balcarra School, Cheltenham, Gloucestershire

Why do we use FTO SERIES Architectural PVC Fabrics on ORION Conic™

Unique to our global partnership, the architectural fabrics on ORION™ tensile structures are designed and manufactured to provide outstanding performance and aesthetic beauty. Backed by industry leading warranties, these fabrics are the result of decades of innovation and technical leadership in the architectural structure market.

Key product strengths of FTO SERIES include:

Ease of Maintenance

A specialist PVDF formulated coating provides a super smooth finish, eliminating the opportunity for dirt to become ingrained in the fabric and spoil the appearance.

Manufacturer Backed Warranty

FTO SERIES Architectural PVC membranes are covered by a 10 year manufacturer's warranty for the white fabric colour and 5 years for all coloured fabrics.

Fabric Colour Stability

Advanced pigment technology ensures a structure's bright appearance will be maintained for many years through advanced production processes that provide resistance to discolouration.

Weather Resistance

Our manufacturing partners have been manufacturing industrial textiles for over 30 years and the proven weathering resistance of these fabrics is second to none.

Flame Resistance

Fire retardant additives within the textile provide a BS7837 fire rating for UK regulatory compliance.

Anti-Wick Treatment

Special anti-wick treatment prevents capillary action from drawing unwanted moisture and associated stains into the base cloth. This eliminates unsightly stains from appearing when the fabric is back lit.

Canopy Translucency

Glare is practically reduced while still allowing excellent light transmission and a UV blocker incorporated into the fabric protects from the sun's harmful rays.

Superior Membrane Stability

Exceptional dimensional stability prevents deformation and sagging in the membrane, and eliminates the need for re-tensioning the cover with the passage of time.

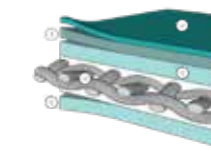


Beecroft Garden Primary School, Lewisham, London

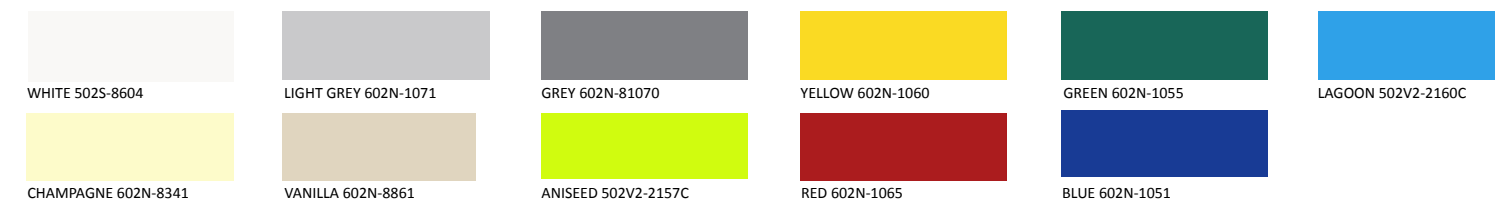
What is the Membrane Composition of FTO SERIES Architectural PVC

The composition details of our Architectural Structure Fabrics deliver many benefits to covered space professionals worldwide. Where standard PVC layers can attract dirt, FTO SERIES fabric has a special PVDF lacquer layer on top, which prevents dirt adhesion. This enables the structure to remain attractive for much longer periods of time, and has added benefit in reducing the level of maintenance required to keep the structure clean.

1. PVDF lacquer layer for excellent weather and chemical resistance
2. Acrylic lacquer layer
3. PVC layer, extra smooth and flat surface with fire retardant, mildew, fungus UV and weathering resistance
4. Polyester woven scrim for strength and stability. Antiwick treated. 570-620 gsm EN ISO 2286-2



What Colours are available in FTO SERIES Architectural PVC



Technical Information on FTO SERIES Architectural PVC

TEST	METHOD	UNIT	WHITE	LIGHT GREY	GREY	CHAMPAGNE	VANILLA	ANISEED	YELLOW	GREEN	LAGOON	RED	BLUE
LIGHT TRANSMISSION	NFP 38 511	%	19	2	1	11	4	9	14	1	5	9	4
*WEIGHT	EN ISO 2286-2	GSM	590	620	620	620	620	570	620	620	570	620	620
TENSILE STRENGTH	EN ISO 1421	N / 5cm WARP	2800	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300
		N/5cm WEFT	280	230	2200	2200	2200	2200	2200	2200	2200	2200	2200
TEAR STRENGTH	DIN 53.363	daN WARP	28	20	20	20	20	20	20	20	20	20	20
		danN WEFT	28	20	20	20	20	20	20	20	20	20	20
FLAME RETARDANCY	AS NZS-1530.3					v		v					
TEMP RESISTANCE	ISO 4674	C											

Technical Specification for ORION Conic™ Structures

Structural Steelwork & Finishing Specification

ORION™ canopy structures are designed and manufactured in accordance with our ISO9001:2008, ISO14001:2015 and BS EN 1090 EXC2 accreditation. Fabricated steelwork undergoes a four part process for long life corrosion protection. 1. Cold grit-blast SA2.5 2. Zinc coat. 3. Anti-corrosive primer. 4. Polyester powder coat high gloss finish system to RAL or BS4800 colour (non-metallic).

Catenary Cable & Tensile Fittings Specification (Cable Edge Design)

ORION Conic™ structures are fitted with AISI 316 marine grade stainless steel 1.4401 austenitic cable, 316 grade stainless steel fixings and fittings and zinc with powder coated membrane plates as standard.

TensiRail™ Membrane Tensioning System (Fixed Edge Design)

ORION™ membrane tensioning is designed for each canopy individually using our TensiRail™ system. Heavy duty extruded aluminium profiles and high-frequency welded fabric seams offer proven durability and a sleek perimeter finish.

Rainwater Systems (Fixed-Edge Design)

Box profile guttering systems are manufactured in galvanised steel with CHS section downpipes to ground drainage. All ORION™ rainwater systems are finished with colour powder coat to coordinate with the steel frame coating.

Great communities unite people, bringing individuals together to collectively enjoy simple, social pleasures that help determine who we are, motivate and inspire what we want to become and define how and where we wish to live. The creation of vibrant and welcoming communal space is an aspirational goal for those who wish to advocate respect, encourage understanding and nurture compassion amongst the people who share it.

Through considered design and construction, covered outdoor spaces can influence and transform our affinity with the surrounding environment, promote our health and wellbeing, enriching our everyday experiences. Streetspace can help your organisation realise these timeless rewards, and make the benefits that come with them both easier to attain and appreciate.



TRITON™ Canopies & Walkways. Representing the ultimate in design flexibility for steel frame, polycarbonate roofed structures; configurations are possible for canopy dimension, roof span, column spacing, design form, finishes, oversail, glazing and enclosure panels.



ORION Shield™ Tensile Structures. Stylish yet unobtrusive design with a gently curved structure profile that compliments both contemporary and traditional settings. The consistent eaves height offers excellent weather protection and an evenness of shade under the structure.



ORION Conic™ Tensile Structures. A high centre point creates the striking external aesthetic and spacious feel of this canopy design, while a low perimeter provides great all day cover without compromising weather or shade protection.



ORION Barrel Vault™ Tensile Structures. Highly versatile design that puts clever engineering to work with the creation of clear-span tensile structures covering large areas such as sports courts, swimming pools, aircraft hangars and school quadrangles.



ORION Hypar™ Tensile Structures. A feature canopy, the hyperbolic paraboloid sail owes its distinctive shape to raised diagonally opposite corners that create form, while opposing tension forces keep the membrane cover tight across the span.



ZONE™ Glazed Structures. An innovative design for the creation of valuable enclosed space; offering the performance of traditional construction, swift site installation of sectional buildings and an architectural impact that belies the cost efficiencies achieved.



SPORTSPACE365™ All Weather Sports Canopies. Enabling sports facilities to accommodate more members and offer extended sporting programmes under the protection of intelligently designed, multi-purpose structures that are cost effective to construct and maintain.



WILD® Greenroof Structures. Providing valuable opportunities to create pockets of biodiversity with a greenroof engineered to bring the enriching and enlightening natural world closer to our everyday lives within the covered space footprint.



STREETSPACE Custom Design. A covered space solution provider offering a high level of stakeholder consultation, design creativity and the passion to deliver; our custom projects are a triumph of insight and innovation.



metroSTOR® Outdoor Storage Systems. Providing the safer, greener and more stylish street scene of tomorrow, with products that address the challenges of outdoor storage; from waste stream enclosures and mobility scooter charging, to cycle parking and locker storage units.