



Serge Ferrari

Serge Ferrari contributes to upcoming sporting events in Brazil

From August 5th to September 18th 2016, Brazil will be hosting 14,850 athletes from 206 countries in 32 sporting venues located in four districts of Rio de Janeiro: Barra, Copacabana, Deodoro and Maracaña. Headquartered near Lyon, France and operating in Brazil through a local subsidiary established in 2012, Serge Ferrari was asked to contribute to five major venues by providing materials for the roofs and façades.

The Serge Ferrari group, which has supplied flexible composite membranes for some 80% of all temporary structures for the London 2012 Olympics, has developed a know-how that is once more being called upon for technically demanding projects that combine architectural challenges and difficult climatic conditions.



CORINTHIANS ARENA – SÃO PAULO

The Corinthians Club's sporting arena turns roof's underside into screen

Inaugurated in 2014 for the football World Cup and completed in September 2015, the stadium designed by architect Anibal Coutinho is located in the working class district of Itaquera, in São Paulo. Like so many other great sports arenas recently built, the stadium also houses an auditorium, a museum, countless private boxes for sponsors, restaurants, and... the world's largest screen! With a capacity of 49,000, the stadium will host the 10 Olympic football events.

The Corinthians Arena is one of Serge Ferrari's largest construction projects in the last few years. The group supplied and installed some 28,000 m² (over 300,000 sq ft) of a specially produced opaque Précontraint® 1002 S2, with a white-coloured finish. The membrane was hung to extend over the seating, acting as a stretch ceiling to hide the roof's metal framework. The panels, which are used as a projection screen, deliver excellent flat performance and dimensional stability, and provide an aesthetically pleasing visual barrier to the roof's metallic trusses. Lightweight, durable and 100% recyclable, Précontraint 1002 S2 opaque provides spectators with optimal acoustic, thermal and visual comfort.

PROJECT

Project: Corinthians Arena

Country: Brazil

City: São Paulo

Design: CDCA

(Coutinho Diegues Cordeiro Arquitetos)

Product: Précontraint 1002 S2 opaque

ROOF: PRÉCONTRAIN 1002 S2, OPAQUE

Yarn: 1,100 dtex PES HT

Weight: 1,050 g/m²

Thickness: 0.78 mm

Width: 267 cm

Tensile strength: 420/400 daN/5 cm

Tear strength: 55/50 daN

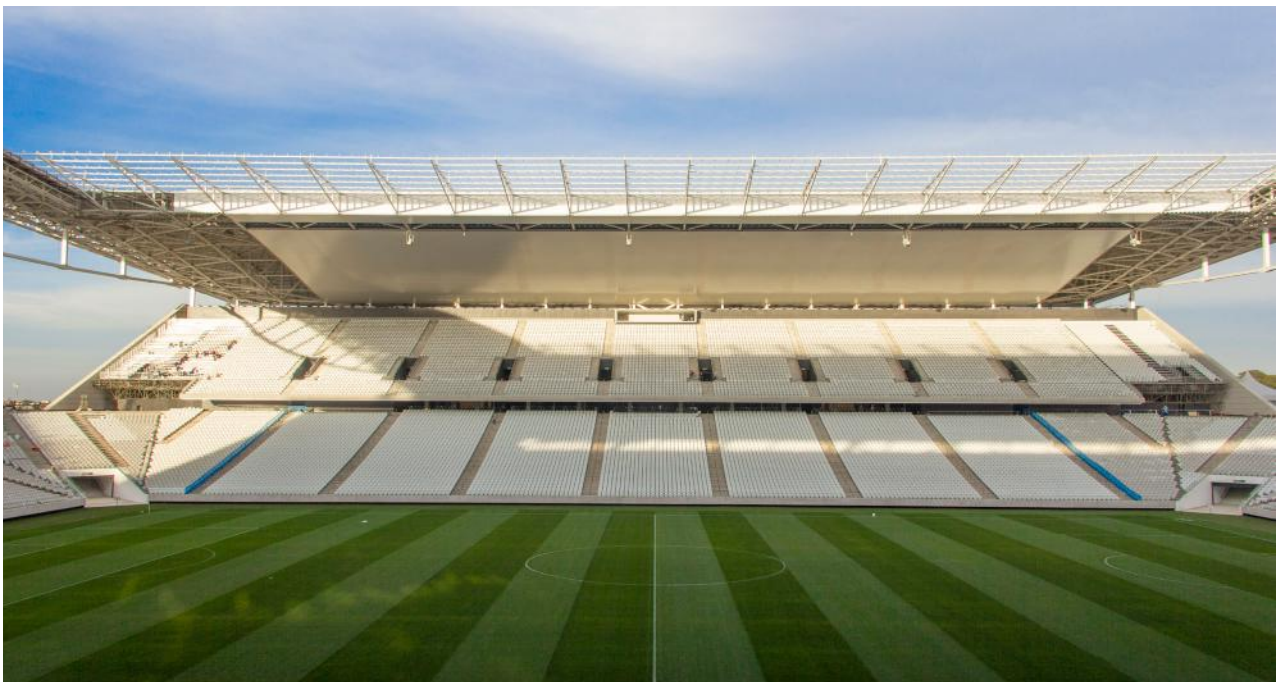
Adhesion: 12 daN/5 cm



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BRAZILIAN PARALYMPIC CENTRE – SÃO PAULO

Premier Paralympic centre shielded from climatic influences

The Brazilian Paralympic Centre was built in São Paulo, in the “Fontes do Ipiranga” National Park. Now Latin America’s premier stage for the development of initiatives promoting disability sports, the centre was completed in 2015 and can accommodate 15 of the 23 disciplines that will be represented at the 16th Paralympic Games, held September 7th-18th 2016 with 4,350 athletes from 176 countries.

The Centre, designed by L+M Gets, uses a variety of membranes manufactured by Serge Ferrari. The façade features three 3-D panels made from Soltis FT 381 for the highest level of thermal protection, while the upper part of the façade is lined with Précontraint 502 which was easy to install and has a beautiful white finish. Recognized for their many qualities – thermal insulation, flexibility, lightweight, UV and humidity resistance, durability – both materials deliver optimal performance to shield the West façade of the building, thus eliminating the need for air conditioning.

The golden red colour, developed specifically for this project, blends perfectly with other elements of the building, such as the aluminium composite panels, to evoke gold and bronze medals.

PROJECT

Project: Brazilian Paralympic Centre

Country: Brazil

City: São Paulo

Design: L+M Gets

Engineering: Fiedler Tenso-Estruturas

Manufacturers: Fiedler Tenso-Estruturas, Pistelli

Products and corresponding surface areas:

- Soltis FT 381: 4,680 m² (50,375 sq ft)

- Précontraint 502 S2: 2,403 m² (25,866 sq ft)

- Soltis 99: 1,150 m² (12,378 sq ft)



FAÇADE : SOLTIS FT 381

Outside surface: metallic or pearly

Inside surface: matt

Yarn: 1,100 dtex – **Weight:** 550 g/m²

Thickness: 1.1 mm – **Width:** 267 cm

Tensile strength: 330/330 daN/5 cm

Tear strength: 65/65 daN

Adhesion: 9 daN/5 cm – **Openness factor:** 28%

Flame retardancy: M1/B1

Extreme operating temperatures: -30/+70°C

(-22/+158°F)

Quality management system: ISO 9001

FAÇADE (upper part): PRÉCONTRAIN 502 S2

Yarn: 1,100 dtex PES HT

Weight: 590 g/m² – **Width:** 250/267 cm

Tensile strength: 280/280 daN/5 cm

Tear strength: 28/28 daN

Adhesion: 10/10 daN/5 cm

Extreme operating temperatures: -30/+70°C

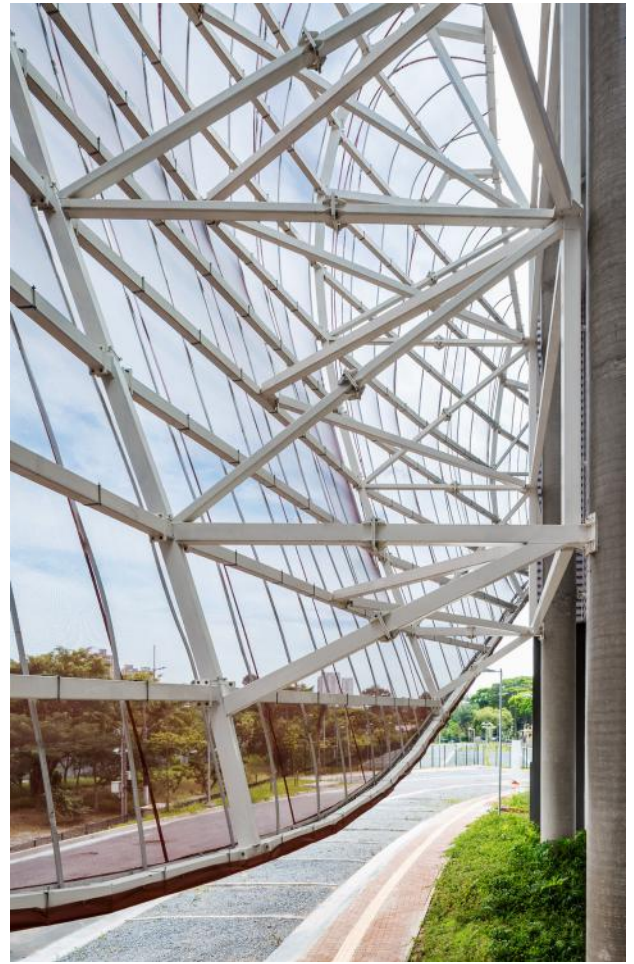
(-22/+158°F)

Quality management system: ISO 9001

Guarantee: 5 years



© Ana Mello



© Ana Mello



© Ana Mello

OLYMPIC GOLF COURSE - RIO DE JANEIRO

Golf course uses Serge Ferrari membranes to harvest rainwater

The Olympic Golf Course was designed as a permanent installation, meant to become a golf resort and teaching centre to help promote golf throughout Brazil and South America. Located just north of Lake Marapendi, it also houses the Brazilian Golf Federation. The architecture, designed by Rua Arquitetos, combines precision with balance, both qualities essential to golf.

According to Pedro Evora, one of the architects, “the idea was to design a golf course and its surrounding infrastructure, ensuring they would blend into the landscape with minimal disruption to the natural environment, while integrating elements of contemporary architecture and traditional Brazilian references (screens, parasols, etc.)” To do so, they created a covered patio in the centre, serving the various buildings distributed around it and opening onto the course. The architects used a very light overhead structure to make the patio a point of reference within the building. The structure is covered with a stretch membrane that shields visitors from the tropical sun and allows the breeze to flow underneath, making it very comfortable.

The structure consists of 14 modules, shaped like inverted pyramids, with a square 10.5-metre (34-foot) base, designed to harvest rainwater, which can then be reused to water the course.

The architects have selected Serge Ferrari’s Précontraint 1002 S2 for its lightweight, durability and weatherproof performance, which they ordered in a champagne colour, as a reference to the course’s bunkers.

PROJECT

Project: Golf course

Country: Brazil

City: Rio de Janeiro

Design: Rua Arquitetos (Pedro Evora & Pedro Rivera)

Contractors: Tensotech

Composite membranes: Précontraint 1002 S2, champagne

Surface area: 2,250 m² (24,219 sq ft)

ROOF & INVERTED PYRAMIDS:

PRÉCONTRAIN 1002 S2

Yarn: 1,100 dtex PES HT

Weight: 1,050 g/m²

Thickness: 0.78 mm

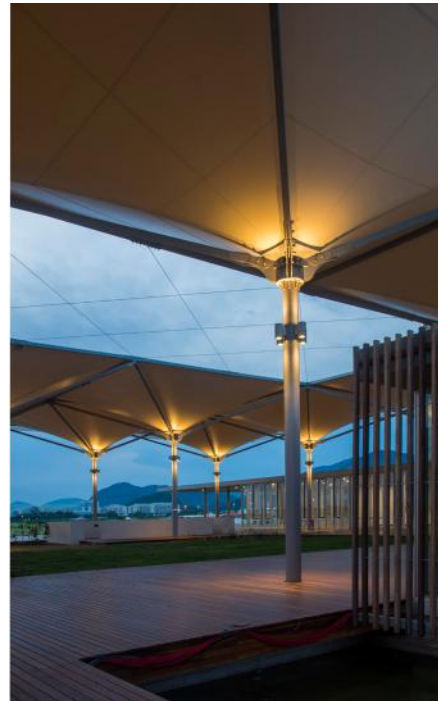
Width: 267 cm

Tensile strength : 420/400 daN/5 cm

Tear strength: 55/50 daN

Adhesion: 12 daN/5 cm





ARENA DA JUVENTUDE – RIO DE JANEIRO

High-performance microclimatic façades

The Arena da Juventude will host the basketball and modern pentathlon's fencing events. With a ground-floor surface area of 14,300 m² (some 153,900 sq ft) and a capacity of 5,000 people, the building was designed by Vigliecca & Associados to achieve 100% natural cooling, using blinds with adjustable slats, ventilation windows and a canopy to reduce exposure to direct sunlight.

The East and West façades are fitted with a metal structure that supports a Soltis FT 381 microclimatic membrane, metal-coloured on the outside and black on the inside, to provide an aesthetically pleasing solution for thermal insulation.

The membrane has a screening effect, blocking sunlight and heat, thereby providing great thermal comfort, and reducing the amount of light permeating through the façade without lowering visibility inside.

The South and North façades are equipped with pivoting metal louvres which allow prevailing winds to flow through the building.

The membranes were fitted onto FACID frames, developed in Germany and manufactured in Brazil.

PROJECT

Project: Arena da Juventude

Country: Brazil

City: Rio de Janeiro

Design: Vigliecca & Associados

Installation: Tensoface

Composite membrane: Soltis FT 381

Surface area: 1,750 m² (18,837 sq ft)

East façade: 12 vertical panels, 3.5-4 x 9.5 m
(11.5-13 x 31 ft)

West façade: 6 horizontal panels 20-22.5 x 5 m
(65.5-74 x 16.5 ft)

FAÇADE : SOLTIS FT 381

Outside surface: metallic

Inside surface: matt

Yarn: 1,100 dtex – **Weight:** 550 g/m²

Thickness: 1.1 mm – **Width:** 267 cm

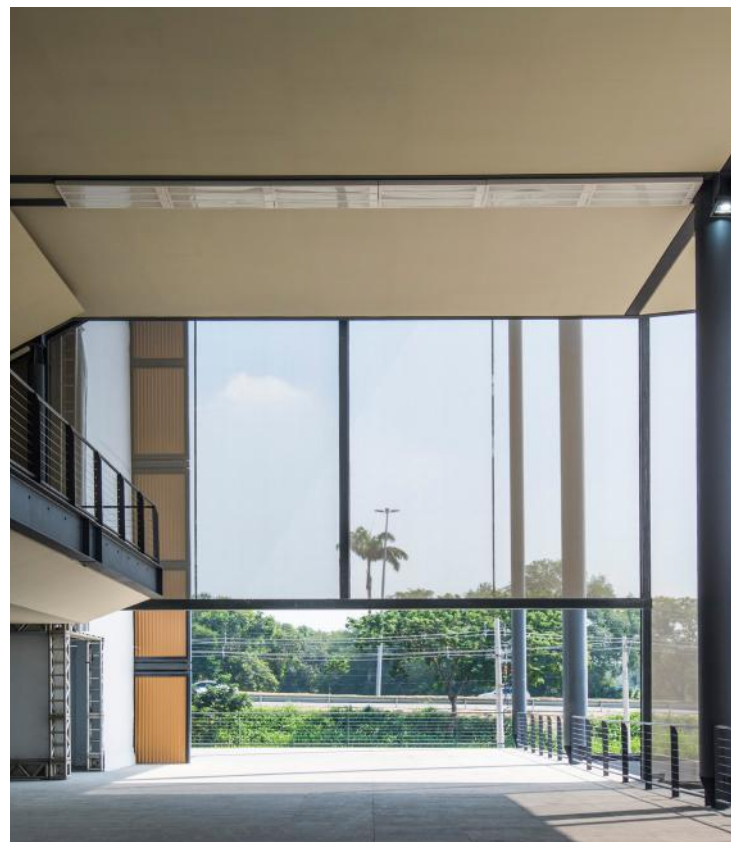
Tensile strength: 330/330 daN/5 cm

Tear strength: 65/65 daN

Adhesion: 9 daN/5 cm – **Openness factor:** 28%

Flame retardancy: M1/B1

Compatible with FACID profiles





OLYMPIC PARK LIVE SITE – RIO DE JANEIRO

Serge Ferrari provides shade for Olympic celebrations

The Olympic Park Live Site is a large round plaza equipped with a giant screen and designed to host outdoor events. It is open to everyone, and especially Brazil's youth. Made from Soltis FT 381 in white, the sails will extend over the Live Site to provide the shade necessary for such large gatherings. The shading sails, with a total surface area of 3,700 m² (just over 39,800 sq ft), consist of triangular panels of three different sizes.

PROJECT

Project: Olympic Park Live Site

Country: Brazil

City: Rio de Janeiro

Design: AECOM

Contractor: Concessionária Rio Mais

Composite membrane: Soltis FT 381, white

Surface area: 3,700 m² (39,826 sq ft)

SHADING SAILS: SOLTIS FT 381

Upside surface: metallic or pearly

Downside surface: matt

Yarn: 1,100 dtex

Weight: 550,600 g/m²

Thickness: 1.1 mm

Width: 267 cm

Tensile strength: 330/330 daN/5 cm

Tear strength: 65/65 daN

Adhesion: 9 daN/5 cm

Openness factor: 28%

Flame retardancy: M1/B1



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MORRO DA URCA

An experience for tourists and sports enthusiasts alike

Beyond the sport venues, many other Rio locations also showcase Serge Ferrari's materials, such as Sugarloaf Mountain. There, the company's Precontraint® and Flexilight® flexible composite membranes are put to good use at both the restaurant and gift shop. Selected for its resilience in an environment where strong winds blow from the coastline, Précontraint® 1002 shields the restaurant Cota 200 and the gift shop from the weather and guarantees the best possible customer experience.

In the restaurant, light floods through a transparent stretch ceiling made from Flexilight FX 701, which also delivers natural cooling.

Originally installed by an other fabricant in 2007, the shop's roof was fitted with a replacement material, Precontraint 1002, in 2015.

PROJECT

Project: Restaurant Cota 200

Country: Brazil

City: Rio de Janeiro

Design: Mac & Godinho Arquitetura

Production: Tensotech

Composite membranes: Précontraint 1002 and Flexilight 701

Surface areas: 1,350 m² (14,531 sq ft) and 200 m² (2,153 sq ft)

Roof: Précontraint 1002

Yarn: 1,100 dtex PES HT

Weight: 1,050 g/m²

Thickness: 0.78 mm

Width: 267 cm

Tensile strength: 420/400 daN/5 cm

Tear strength: 55/50 daN

Adhesion: 12 daN/5 cm

PROJECT

Project: Gift shop roof

Country: Brazil

City: Rio de Janeiro

Design and production: Fieldler Tenso Estruturas

Composite membranes: Précontraint 1002

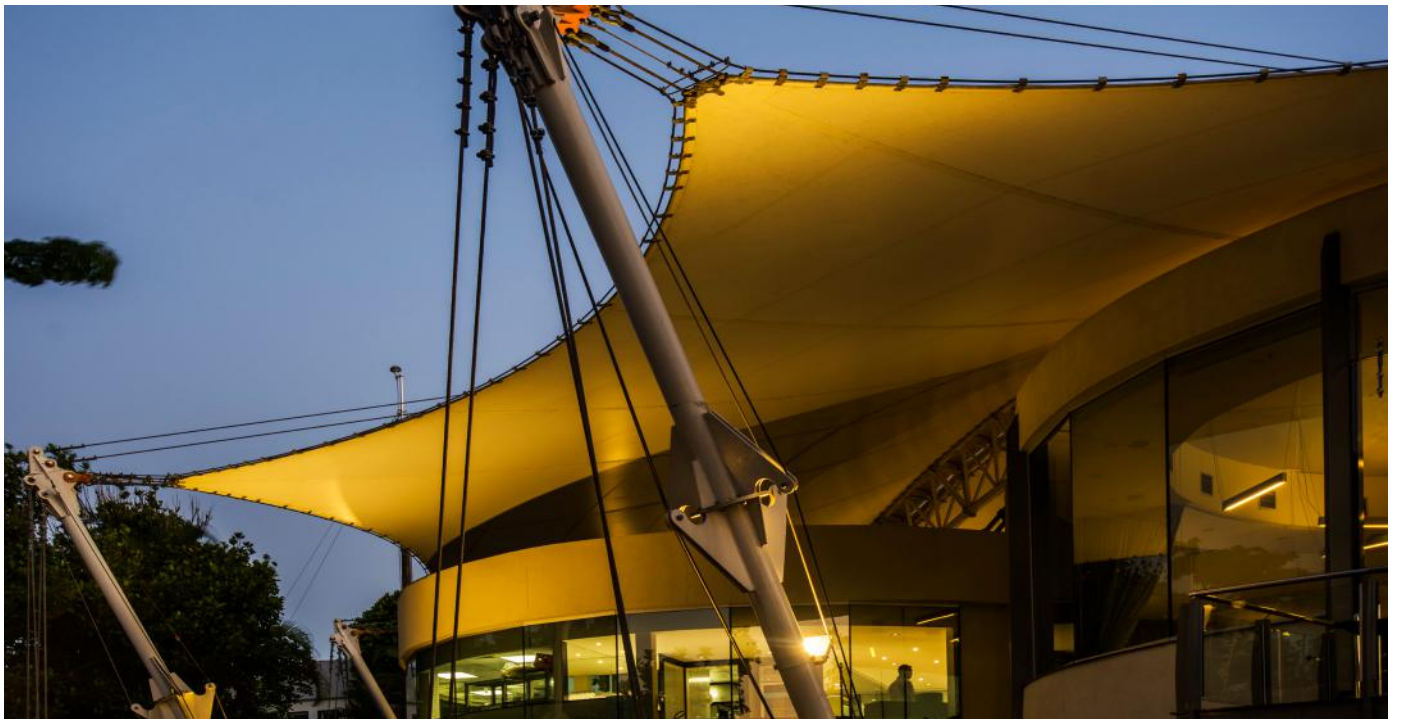
Surface area: 1,200 m² (12,917 sq ft)



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About Serge Ferrari

The Serge Ferrari group designs, manufactures and distributes high-technology eco-friendly flexible composite materials, for a market that the company has estimated at €3.1 billion. The unique properties of its products open applications bringing solutions to technical challenges in three distinct fields: architecture, purpose-specific membranes for professionals and composite membranes for the consumer market. The group's main competitive advantage resides in its differentiating technology, Précontraint, and the associated proprietary industrial know-how. The group has three manufacturing sites: one in France and two in Switzerland. Serge Ferrari is present in 80 countries with four subsidiaries (USA, Japan, Hong Kong and Brazil), five representative offices (Spain, Turkey, China, Singapore and Dubai) and a network of more than 100 distributors. At the end of 2015, Serge Ferrari reported revenues of 148.5 million euros, of which 75% came from outside France. The company employs 683 people worldwide.

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