



# Olympics recycled PVC for 2014 World Cup

*Polyvinyl chloride (PVC) has proved a popular choice in the construction of facilities for the London 2012 Olympic Games, with more than 142,000 square metres of PVC fabric used in the Park and external sites.*

Moreover, careful planning and strict guidelines for PVC use and recycling techniques issued by the Olympic organisers in 2009 look to have defused any controversial issues surrounding the product's usage.

As a result of this policy developed by London 2012, PVC used at the Games includes at least 30% recycled content, is manufactured in accordance with the ECVI Industry Charter, meets standards for effluent discharges and vent gases, and does not contain (amongst other substances) lead, mercury or cadmium stabilisers.

The credibility of the sustainable VinylPlus initiative, which builds on the success of the Vinyl 2010 ten-year voluntary commitment to enhance the sustainable production and use of PVC, has undoubtedly been strengthened by these policies put forward by London 2012.

## **PVC at the 2012 London Olympics**

- Aquatics Centre (Zaha Hadid): 15,000 PVC temporary chairs and 8,000 m<sup>2</sup> PVC external wrap
- Velodrome (Hopkins Architects): 2,600 m<sup>2</sup> of PVC in high-performance surface
- Royal Artillery Barracks shooting venue (Magma Architecture): 22,000 m<sup>2</sup> of PVC membrane
- Olympics Stadium (Populous): extensive use of PVC

After the London event, all temporary structures will be dismantled and recycled. A system of crushing, selective dissolving, fibre separation, PVC precipitation and solvent regeneration will ensure that recycled PVC is of a high quality and can be reused with minimum impact on the environment. This process can easily separate PVC from other materials such as natural textiles, metals and rubber, and was used to process 7,540 tonnes of waste by Serge Ferrari in 2011.

It is even planned that some of the recycled PVC from London 2012 will be used in football stadiums currently under construction in Brazil for the 2014 FIFA World Cup... continuing a sustainable product chain to the next great world sporting event!

## **Architects:**

- Aquatics Centre, Zaha Hadid
- Velodrome, Hopkins Architects
- Royal Artillery Barracks shooting venue, Magma Architecture
- Olympics Stadium, Populous

**Location:** London

**Technical info:** PVC facilities





## Sustainable street food

*Rain Catcher merges a Hong Kong street tradition with environmental sustainability to create a surprising outdoor eatery that reuses monsoon rain.*

15:15 Rain Catcher by YS Groundwork is the result of a competition entry for the contemporary design of one of Hong Kong's oldest urban traditions: the Hawker Stall – Dai Pai Dong. A Hawker Stall is a kitchen, a dining room and a living room – a space for passersby to enjoy public space, interact with strangers, and grab a bite to eat on their way to their next destination. Initially exhibited at the 2009 Hong Kong Shenzhen Bi-City Biennale of Urbanism and Architecture, YS Groundwork has won the opportunity to bring their design to life and prove that their twist on tradition will add vitality and innovation to Hong Kong's street life.

YS Groundwork is supported by and collaborates with Hong Kong Polytechnic University's Department of Electronic Engineering. Their aim is to enhance architecture with the latest energy technologies and 15:15 Rain Catcher is a result of this partnership. The innovative stand featured an additional element to the stall; the formal design – that of an inverted umbrella – was

devised in order to collect and store rainwater. Inspired by the monsoon climate of Hong Kong and Shenzhen, the design was chosen to celebrate rain.

The rainwater is collected through the PVC roof and directed to a central column to create a load-bearing structure. It is then filtered and redirected to a water tap where it can be reused for cooking and washing. In this sense, the rain, which can be a burden to the city, is used to celebrate an aspect of Hong Kong cultural city life where food and shopping can be enjoyed.

**Project:** 15:15 Rain Catcher  
**Architect:** YS Groundwork -  
**Location:** Hong Kong  
**Technical info:** PVC roof  
**Picture credits:** Alvin Wong, Aeostudio





## As special as the man

*A new cult destination pays homage to the great car builder from Modena, Enzo Ferrari.*

The Enzo Ferrari House Museum in Modena was designed by Jan Kaplický of London-based Future Systems. Dedicated to motor racing legend and entrepreneur Enzo Ferrari (1898 – 1988), the museum comprises exhibition spaces within the early nineteenth century house where the motor racing giant was born and raised, and its adjoining workshop, as well as a separate, newly-constructed exhibition building. Kaplický, who died before finishing the project, wanted to create a dialogue between the two exhibition buildings that shows consideration for Ferrari's early home and underscores the importance of the museum as a unified complex made up of several elements.

The sculpted yellow aluminium roof with its ten incisions, intentionally analogous to those air intake vents on the bonnet of a car, allows for natural ventilation and day lighting, while presenting the aesthetic values of car design.

With its 3,300 square metres of double-curved aluminium, the roof is the largest aluminium application of its kind. Together with boat builders whose familiarity with organic sculpted forms and waterproofing made them the ideal partner, and cladding specialists, the form is constructed from aluminium sheets fitted together using a patented tongue and groove system.

Visitors entering the new building have uninterrupted views into the entire exhibition space: a large, open, white room, partially covered in PVC, where the walls and floor transition lightly into one and other, and are perceived as a single surface. A stretched semi-transparent PVC membrane spreads light evenly across the roof, recalling the language of a car interior. A bookshop and café are situated to one side of the entrance and facilities to the other, each painted in the same Modena yellow of the Ferrari logo shield. A gently sloping ramp gradually leads the visitor around the building from the ground floor to the basement level.

The Enzo Ferrari House Museum in Modena was opened on 10th March 2012.

**Project:** Enzo Ferrari House Museum

**Location:** Modena, Italy

**Architect:** Future Systems, UK

**Technical info:** Barrisol PVC membrane

**Picture credits:** Cento





# Cherry trees in Washington

*New techniques and unconventional materials drive design and narrative by Tom Price.*

British designer Tom Price has made an enchanted grove of cherry trees out of PVC tubes and cable ties. The slender cherry trees occupied an entire room at Industry Gallery in Washington D.C last month, casting delicate shadows on the surrounding walls.

Price was inspired to make the installation when he visited the US capital last spring during the National Cherry Blossom Festival.

He used special tools to heat the plastic tubing so that he could then bend and twist it into the desired shape. Cable ties hold the bundles of tubing together, forming trunks and branches.

The designer then fused small cross-sections of the tubing together to form a canopy that creates a dappled light underneath.

Specializing in modern furniture products, sculpture and lighting design, process plays a key role in Price's work which has been bought by international museums, galleries and private collectors. Much of Price's work is made using unconventional materials. In fact, he often finds it necessary to invent new tools and techniques in order to get the required results from certain fabrications. But Price sees this as an intrinsic part of the overall design and narrative.

**Artist:** Tom Price, UK

**Location:** Industry Gallery, USA

**Technical info:** PVC tubes

**Picture credits:** Industry Gallery





# When faces keep changing...

Transparency and shared space help mobile consultants feel part of the team.

SO – IL, a Brooklyn-based design firm, completes new office and studio space for the New York office of Logan, a bicoastal production company. The project is located in a 6,500 square-foot corner loft space on the second floor of a land-marked building in the heart of SoHo.

SO – IL's design builds on Logan's dynamic working model and attempts to create an environment that supports a strong sense of collaboration and collectivity. A large part of Logan's team consists of mobile consultants who join the team on a per-project basis.

This constantly-changing work setting requires a high level of flexibility rather than personalised work stations and rooms. SO – IL rethinks how office space can work given Logan's organization - creating layers of transparency and completely shared work spaces. The space is divided into two identical, symmetrical rectilinear spaces. Each long room has a 20-metre continuous custom work table. Accommodating working groups of any size, the shared desks consolidate almost every operation of the company in one place: design, production, and meetings.

The end section of each continuous table is divided by glass walls, allowing for acoustically private offices and meeting rooms to share the

same work surface. The supporting functions of the office, including three felt-wrapped, sound-isolated editing suites are organized along the periphery of the space. Seamless, floor-to-ceiling translucent fabric walls separate the central work areas, visually breaking down the scale of the space, while maintaining a shared environment, and allowing natural light to penetrate. A stretched PVC luminous ceiling provides totally even, shadow-free lighting.

Looking through layers of fabric, people and objects appear almost out of focus. Fabric walls catch natural light, and like a projection screen, change colors as light changes throughout the day. Together, the seamless fabric, luminous ceiling, and continuous desks create a scaleless environment of abstraction, freeing those working in the space from typical expectations of use. This abstraction, combined with the symmetry of spaces and spatial ambiguity of the fabric, creates the illusion of reflections when looking into adjacent spaces, creating a dream-like, surreal experience.

**Project:** Logan Offices

**Location:** New York, USA

**Architect:** SO-IL, USA

**Technical info:** PVC ceiling

**Picture credits:** Naho Kubota, Iwan Baan





# Opposites can live together

A new Starck outdoor lighting collection marries hi-tech and handcraft.

French designer Philippe Starck has designed a new outdoor collection of lamps that is the fruit of two opposing yet interchanging design concepts. It marries the high technology of a die-cast aluminium base and stem support, with an outer diffuser obtained from weaves of coloured PVC tube compounds handcrafted by master artisans. Based on a concept of interchangeable liaisons of materials, colours and workings, these lamps open the horizon to a future of specially customized furniture and an array of possible combinations.

The new Starck outdoor collection was showcased in an elaborate installation at the Flos exhibition during the last Milan Design Week.

**Project:** Starck Outdoor Collection

**Designer:** Philippe Starck, France

**Producer:** Flos, Italy

**Technical info:** Braided coloured PVC tubes

**Picture credits:** Flos

