

THE LIBRARY OF TREES

THE LAST PIECE
OF THE JIGSAW IN THE
REDEVELOPMENT
OF THE AREA: A GREEN
LUNG FOR THE PORTA
NUOVA DISTRICT



Extending over an area of 9.5 hectares, the Library of Trees Park is gradually taking shape. It is set to become the central feature of the Porta Nuova district and the third largest public park in the centre of Milan. The park is divided into three main areas: the largest area is between Via Gioia, Via Pirelli and Via De Castilia, a second area is on the roof of the underground carpark in Piazza Einaudi and the third area is a straight strip running alongside Viale della Liberazione. Thanks to the grassland and numerous trees, the aim is that it will have a positive impact on the microclimate and ecosystem of this urban area.

The park, which has around 450 trees of 21 different species, 34,800 m² of grassland and almost 90,000 hedges, bushes, climbing plants, aquatic plants and ornamental plants, is set to become the largest pedestrian area in the city with 170,000 m² of footpaths and 5 km

of cycle tracks.

The final layout of this park, the first in Milan designed according to a contemporary landscape concept, is based on three main elements that are visible particularly when viewed from above: the main pathways that connect the outer areas of the park, irregular shaped patches of land that form the gardens, grassy areas, flower beds and small piazzas, and circular copses made up of groups of trees to create what are considered to be “green rooms”.

In 2004, within the framework of a more comprehensive project to restore and redevelop the areas in the Garibaldi-Repubblica zone, Milan City Council issued an international design tender to define the layout of the park. The tender was awarded to the Inside Outside|Petra Blaisse design studio from the Netherlands, in collaboration with the Studio Giorgetta design studio of Milan, and was

approved in 2014. In June 2015 Coima SGR took over from the City Council to carry out work on the public park in lieu of building permit fees for the Porta Nuova development.

The first lot (an area of 7,500 m²) between Via De Castilia and Via Sassetti was inaugurated in April 2017 and has around fifty trees of three different species (ash, hornbeam and black poplar), bocce courts, water features, a playground and a series of vegetable patches for didactic purposes where workshops are held on a weekly basis. The second lot, which has also been completed, will be inaugurated in the autumn of this year, giving the recently planted trees time to grow and become established before the first visitors arrive.

THE ORNAMENTAL POND

There is also a large, triangular shaped ornamental pond in this new area. For



waterproofing below the foundation slabs MAPEPROOF LW was used, a type of bentonite sheet for structures below ground level with a water table less than 5 m. The sheet was folded around the base. IDROSTOP B25 hydro-expanding bentonite joint was also applied for sealing the second pour of concrete. The waterproofing work continued by applying two coats of MAPELASTIC FOUNDATION two-component cementitious mortar with a roller, which is applied in layers at least 2 mm thick. The joint between the two waterproofed surfaces was then sealed with MAPEPROOF MASTIC natural sodium bentonite grout. To waterproof the internal surfaces of the pond (around 500 m²), PURTOP 1000 two-component, pure polyurea membrane was applied by spray, a product used to form high performance waterproof coatings on storage tanks, pools and hydraulic structures directly on site. Before applying it, all the surfaces were treated with a coat of TRIBLOCK P epoxy-cementitious primer, which is used to waterproof damp substrates, followed by a coat of PRIMER SN epoxy primer broadcast while still wet with QUARTZ 0.5 quartz sand. Stone slabs were then bonded inside the pond using KERAPOXY anti-acid epoxy mortar, which is used for both bonding and grouting joints.

LEFT. The internal surfaces of the pond were treated with TRIBLOCK P and PRIMER SN.

BELOW. Waterproofing work was completed by spray-applying PURTOP 1000 membrane.



IN THE SPOTLIGHT

PURTOP 1000

It is a two-component, solvent-free pure polyurea membrane applied by spray with a high-pressure, bi-mixer type pump, to form waterproof coatings for hydraulic works, roofs and bridge decks directly on site. Thanks to its high chemical resistance, exceptional flexibility and tear strength, PURTOP 1000 is suitable for waterproofing membranes on storage tanks, basins and hydraulic works in general. The special properties of PURTOP 1000 also makes it suitable for waterproofing both new and existing structures. It forms an excellent bond and may be applied on various surfaces (concrete, metals, etc.) to create a strong, flexible, continuous membrane.

TECHNICAL DATA

Library of Trees Park, Milan (Italy)

Period of construction: 2014-2018

Year of the intervention: 2017

Intervention by Mapei: supplying products for waterproofing the ornamental pond, installing stone and grouting joints

Design: Inside Outside|Petra Blaisse and Studio Giorgetta

Client: Milano City Council

Installation companies: Sforazzini Srl, Polisolamenti Srl

Mapei coordinators: Giuseppe Dal Mas, Fabio Messina and Andrea Peli, Mapei SpA (Italy)

MAPEI PRODUCTS

Waterproofing below slabs: Mapeproof Mastic, Mapeproof LW, Mapelastical Foundation, Idrostop B25

Waterproofing internal surfaces: Primer SN, Quartz 0.5, Triblock P, Purtop 1000

Installing stone materials: Kerapoxy

For further information on products see www.mapei.com