

Project:

Waterproofing of a tunnel segment

Location:

Cordee Montblanc Tunnel
(Italy)

Project completed:

2014-15

Owner/s:

Funivie Monte Bianco S.p.A.

Applicator/Contractor:

Cogeis SpA e I.V.I.E.S. SpA

Designer/Architect/Specifier:

-

Market sector:

Traffic / Infrastructure

Products used & amounts:

MasterSeal 6100 FX
approx. 1250 Kg

Torino Hut Tunnel

Extreme waterproofing in a tunnel segment



Our reference in Cordee Montblanc (Italy): Torino Hut Tunnel

The background

The facilities have the dual function of structurally anchoring the new Pointe Helbronner station to the rocky substrate and of hosting safety staircases and elevators that will connect with the pedestrian tunnel leading to the Torino Hut, since the new project will no longer stop near the hut.

The pedestrian tunnel has a 15 m² excavated section and is approximately 154 meters long. It includes a natural cave segment of 143 meters and an artificial tunnel segment of 11 meters near the exit to the Torino Hut.

The challenge

The purpose of the application was to waterproof internally the surface of the concrete segment of the tunnel used for water transportation

The location of the tunnel, remote and at a high altitude, represented the major challenge for the application as the product chosen should maintain its waterproofing and protection capacities in this extreme environment and, at the same time, help a trouble free application.

Contact:

Master Builders Solutions Italia Spa
Via Vicinale delle Corti, 21 - 31100
Treviso(TV) – Italy
P +39 0422 429 200
F +39 0422 301 185

www.master-builders-solutions.com/it

Torino Hut Tunnel

Extreme waterproofing in a tunnel segment



Our reference in Cordee Montblanc (Italy): Torino Hut Tunnel

Our solution

To ensure the elasticity even at very low temperatures and required the use of a specific product with polymers having a very low glass transition temperature.

MasterSeal 6100 FX offer the required high elasticity at low temperatures and can also be supplied in white color, necessary to increase the light effectiveness and improve the visibility inside the tunnel.

The application proceeded effectively by spray in one single layer, using a worn driven pump with compressed air injected at the nozzle.

The customer's benefit

- MasterSeal 6100 FX can be applied in moist (wet) conditions which were expected not only in the substrate of the tunnel but also on the closed environment.
- MasterSeal 6100 FX maintains its elasticity and crack bridging properties even at -10°C . This crack bridging capacities also help the durability of the membrane
- MasterSeal 6100 FX as finishing protective layer protects concrete against carbonation and offers a concrete real white homogeneous color that avoids the need of an additional aesthetical paint.
- Quick finishing of the jobs due to the possibility to spray the waterproofing membrane in one single layer.
- MasterSeal 6100 FX is odorless and can be applied in closed environments.

Projects facts at a glance

- A total of approx. 700 m² of waterproofed area
- MasterSeal 6100 FX applied at 2 mm thickness with 1,8 Kg of product per m²
- Completion of the job in only 2 days thanks to the one layer spray application.
- The use of MasterSeal 6100 FX instead of other traditional cementitious two-component waterproofing membranes saved in this job approx. 1 ton of waterproofing material.

Master Builders Solutions by MBCC group

The Master Builders Solutions brand expresses MBCC Group's expertise in providing customized chemical solutions for new construction, maintenance, repair and restoration of structures.

Master Builders Solutions is built on the experience gained from more than a century in the construction industry. At the core of the Master Builders Solutions brand is the combined know-how and experience of a global community of construction experts, who connect with you to solve all your construction challenges.

Further information is available at:
www.master-builders-solutions.com/it