

MTRC Contract 823B

Guangzhou-Shenzhen-Hong Kong Express Rail Link (People's Republic of China)

The Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) is an express railway to be opened in phases between 2011 and 2017. It will connect Hong Kong with the major cities of mainland China (Panyu, Guangzhou, Shenzhen). The XRL Hong Kong section is under management of the Mass Transit Railway Corporation (MTRC). It is 26 kilometers in length and includes several tunnels. This project will cost 8 billion US dollars and is split into 9 contract packages. There are a total of eight emergency access points along the XRL and an Emergency Rescue Sidings (ERS) located at approximately the middle of the XRL route. The 1.24 km long Stabling Sidings and ERS are located at Shek Kong and they belong to the so-called "MTRC Contract 823B". The scope of work for Contract 823B includes the formation of a 27 hectare job site which hosts the maintenance and plant buildings, the Emergency Rescue Siding, drainage system, water course diversions, roadwork, noise barriers, landscaping and linked habitat compensation works in Shek Kong. Mapei's pure and hybrid polyurea waterproofing membranes were selected to waterproof roof tops and sections of the tunnels, respectively. For the roof-tops of the maintenance and plants buildings, PRIMER SN two-component epoxy primer and PURTOP 1000 two-component, solvent-free, pure polyurea membrane were applied to waterproof and prepare the total area of about 28,000 m² for green roof set up. MAPEFLEX PU45 was used to repair pinholes and for defect fixing purposes. For sections of the tunnels, PRIMER SN and PURTOP 400 M two-component, solvent-free, spray applied, hybrid polyurea membrane were used to waterproof approximate 18,000 m². The waterproofing membranes were chosen due to their chemical resistance, flexibility and tear strength characteristics to fulfill the specific requirements for each location.



Technical Data

Period of Construction:

2012-ongoing

Period of the Intervention: June

2013-on going

Client: MTRC

Design: FTP Farrells Ltd., Ove Arup & Partners HK Ltd.

Contractor: Maeda – China State JV

Building Company: Hopshing Waterproof & Construction Co. Ltd.

Mapei Co-ordinators: Stuart Watt and Sammy Fan, Mapei China (Hong Kong)

Mapei Products

Mapeflex PU45, Primer SN, Purtop 400M, Purtop 1000

