



Marieholm Tunnel

THORMAJOINT®



Key Details

Location:
Gothenburg, Sweden

Date:
2019

Product:
Thormajoint®
BJ200 Super Ex

Application details:
Aggregate

- 11/16 Quartzite

Bridging plate

- 250 mm wide x 10 mm thick
- Stainless steel

Debonding Strip

- 280 mm wide

Substrate type

- Stone Mastic Asphalt

The Challenge

The Marieholm Tunnel, completed in 2020, is a submerged tunnel under the Göta River in Gothenburg, Sweden. Connecting the E6 with the E45 and E20 via the Partihalls junction, it provides a vital link for 90,000 vehicles each day and was designed to ease the city's growing congestion. The tunnel consists of two tubes, with three lanes in each direction, and reaches a depth of 17 metres below the water's surface.

With an overall weight of 250,000 tonnes and a project cost of approximately SEK 3.5 billion, the tunnel's design demanded highly durable and watertight asphaltic plug joints capable of withstanding harsh conditions and long-term heavy traffic loads. With strict time constraints, application needed to be executed efficiently.





Site Conditions

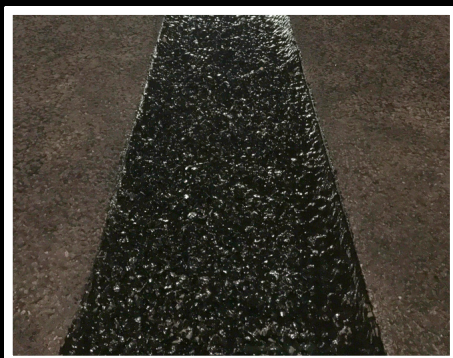
Ambient Temperature	9°C
Joint Length	12.2 m
Joint Width	500 mm
Joint Depth	70-120 mm
Skew Angle	0°
Expansion Gap	70 mm

Solution

To meet these requirements, our most flexible Thormajoint® BJ200 Super Ex binder was chosen due to its high movement capability and proven resilience in extremely cold climates (as low as -30 °C). A total of 32 joints were seamlessly installed on the carriageway in both tunnels at 20 m intervals. To facilitate movement without compromising waterproofing, each joint incorporated a debonding strip that further enhanced the flexibility and durability of the system. A thin binder layer was screeded over the final joints for a smooth, flush finish.

Result

Despite strict time constraints, the installation process was carried out efficiently, with each joint completed to deliver a seamless finish and watertight performance. The system provided long-lasting durability and reliable protection against water ingress, whilst enabling structural movement without damage. The result was a fully waterproof tunnel structure that supports smooth, safe, and continuous traffic flow, meeting the project's challenging standards for performance and resilience.



About Thormajoint® BJ200 Super EX

High performance binder for extreme cold and temperate climates.

- ✓ Purpose-built for temperatures ranging from -30 °C to 35 °C, suitable for sub-arctic regions.
- ✓ Exceptional low-temperature flexibility and maximum extension capacity.
- ✓ Type-approved and registered with the UK Department of Transport.
- ✓ Low cost, low maintenance solution compared to other joint systems.