



Road 304 Saudi Arabia

THORMAJOINT®

Key Details

Location:
**Madinah Province,
Saudi Arabia**

Date:
2017

Product:
**Thormajoint®
BJ200 Red**

Application details:
Aggregate

- 20 mm BJ Stone

Bridging Plates

- 8 x 175 x 1000 mm
- Galvanised steel

Substrate Type

- Concrete

The Challenge

The Road 304 Bridge in the Madinah Province is a highly trafficked route used by both commercial and passenger vehicles travelling through Saudi Arabia's western region. The core objective was sourcing a durable alternative to traditional mechanical joints, which could accommodate exposure to moisture, bridge movement and heavy traffic loads.

Beyond mechanical stresses, the region's high ambient temperatures and thermal cycling presented additional challenges for the bridge joint system. To ensure long-term structural integrity, the proposed solution needed to be specifically engineered to meet these climatic and performance demands.



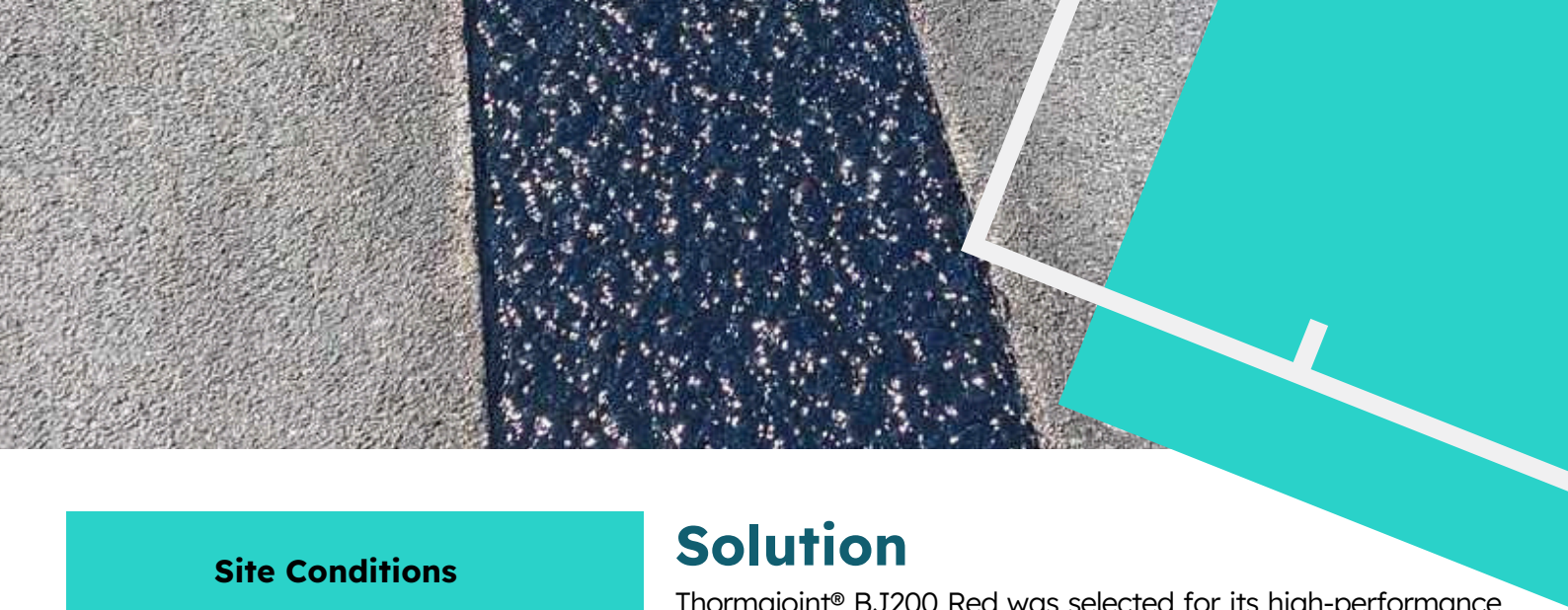
Installing steel plates



Binder tanking



Sealing joint surface



Site Conditions

Joint Width	500 mm
Joint Depth	75 mm
Joint Length	400 m
Skew Angle	25°
Expansion Gap	100 mm

Solution

Thormajoint® BJ200 Red was selected for its high-performance movement capability and resistance to flow in hot climates, preventing deformation under extreme heat and supporting temperatures up to 50°C. A key challenge during installation was the heating of the material under the difficulties posed by the local climate, necessitating the use of indirect oil jacketed heating and precise temperature control to maintain stability. The proven durability of the BJ200 Red binder ensured a solution that was tailored for the climate and built to last.

Result

The new Thormajoint® system provided a seamless, durable, and watertight joint, which offered increased protection against hot temperatures, water ingress and heavy trafficking. The flexible and hard-wearing system delivered joint stability where softer binders can flow in hot climates, resulting in the successful installation of 400 linear metres of Thormajoint®. The outcome combined long-term performance with enhanced ride quality through noise-free transitions, ensuring smoother and safer journeys for thousands of drivers daily.



About Thormajoint® BJ200 Red

Our high performance product designed for hot climates.

- ✓ Suitable in climates with temperatures ranging from 0°C to +50°C.
- ✓ Combines good movement capability with enhanced resistance to flow.
- ✓ Ensures joint stability in hot conditions, where elevated temperatures can cause softer binders to flow.
- ✓ Cost effective solution compared to alternative joint systems.