# 2nd Penang Bridge (Malaysia)

## Project description

The Second Penang Bridge is the longest bridge in Southeast Asia with a total length of 24 km. It connects Batu Kawan on the mainland of Malaysia with Seberang Perai and Batu Maung on Penang Island.

It features a dual pylon cable-stayed structure with a main span of 250 m and a clearance height of 30 m above sea level. The bridge has a dual carriageway with two lanes and a separate motorcycle lane on each side, allowing motorcycles to cross the bridge safely.

The first Penang Bridge was opened in 1985 and was also supplied with mageba TENSA®MODULAR expansion joints. With this second crossing, the traffic congestion on the first bridge is significantly reduced.

## mageba scope

mageba has supplied TENSA®MODULAR expansion joints of type LR2 to LR5 for the bridge, as well as TENSA®GRIP single gap expansion joints of type RS-B.

All TENSA®MODULAR expansion joints are designed with a special seismic protection feature which allows transverse movements of up to 200 mm. Four of the TENSA®MODULAR expansion joints are Type LR-LS (featuring noise reducing surface plates), especially suitable for locations close to residential areas.

The TENSA®GRIP single gap expansion joints of type RS-B are very robust and can hence very easily cater for the 100,000 vehicles crossing the bridge every day.

## Highlights & facts

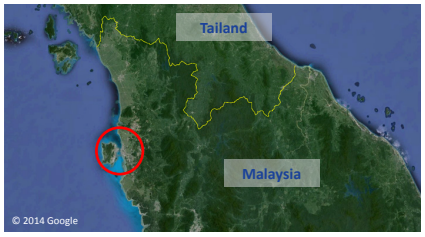
**mageba products:**

| | |
|---|---|
| Type: | TENSA®MODULAR Type LR & LR-LS |
| | TENSA®GRIP Type RS-B |
| Features: | Anti-seismic design and noise-reducing sinus plates |
| Installation: | 2013 |

**Structure:**

| | |
|---|---|
| Location: | Penang |
| Country: | Malaysia |
| Construction: | 2008–2014 |
| Type: | Cable-stayed bridge |
| Length: | 24 km |
| Builder: | UEM Builders Berhad, China Harbour (CHEC) |

Location of the 2nd Penang Bridge, Malaysia




mageba TENSA®MODULAR expansion joint of type LR 5 during installation

TENSA®MODULAR expansion joints of type LR-LS, ready for shipment to Malaysia

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