PROJECT REPORT



A 10
Berliner Ring

Data and facts

Company	PORR Verkehrswegebau GmbH
Type	Highway
Runtime	02.2024 - 12.2024
Principal	Die Autobahn GmbH des Bundes Niederlassung Nordost

Project report online

www.porr.de

Road surface on the Berliner Ring renewed

From concrete surface to asphalt pavement

First, the central reservation crossings and emergency lay-bys were prepared and subsequently dismantled. Following the dismantling of the existing concrete surface, the sub-base was graded over an area of 81,350 m². The contract also included the renewal of verges, rainwater drains and collection channels as part of the underground pipe jacking works, as well as work on induction loops and signage.

New pavement structure on the open stretch

A new asphalt pavement was laid on 74,750 m² of the open stretch. This consisted of a 35 cm thick crushed stone base course, a 20.5 cm thick asphalt base course and a 9.5 cm thick asphalt binder course. The top layer was a 2 cm thick asphalt surface course made from the DSH-V 5 asphalt mix.

DSH-V required precise laying

On the open stretch and on three approach areas to structures, the asphalt surface course was constructed using the DSH-V method. DSH-V stands for 'thin asphalt layers laid hot on a sealed base'. Compared with mastic asphalt and asphalt concrete, the method required up to 50 per cent less material, but placed high demands on precision and experience during laying.

Evenness as a prerequisite

To lay the thin-layer surfacing, the sub-base – and in particular the asphalt binder course – had to be very even. This was crucial for the road's load-bearing capacity and durability, as well as for water drainage. Consequently, the individual layers had to be prepared and laid with great care.

Sealer and surface course in a single operation

A millimetre-thick, polymer-modified bitumen emulsion was used as the sealing layer and bonding agent. It was applied evenly across the entire surface and must not be damaged during laying. For this reason, the pavers used were equipped with a special spraying device, enabling the sealing and laying of the asphalt surface course to be carried out in a single operation without driving over the freshly sprayed bitumen film.

Mastic asphalt on three motorway structures

Three motorway structures were also part of the maintenance works. There, the existing asphalt surface course was first milled off layer by layer. The structures were then given a new asphalt surface course made of mastic asphalt.

Experience with thin asphalt layers

PORR transport route engineering was a member of the DSH-V Quality Association and was thus involved in the continuous further development of the construction method and quality assurance procedures. This experience was incorporated into the implementation of the thin asphalt layers on the Berliner Ring. The demanding installation process required precise coordination of the individual work stages.

Renewed section on the Berliner Ring

The works involved renewing a section of the BAB 10 motorway approximately 5,200 metres long, between the Erkner junction and the Spreeau interchange, in the direction of the Barnim interchange. The project was carried out to maintain this section of motorway and involved replacing the existing concrete deck with a new road structure.

Impressions





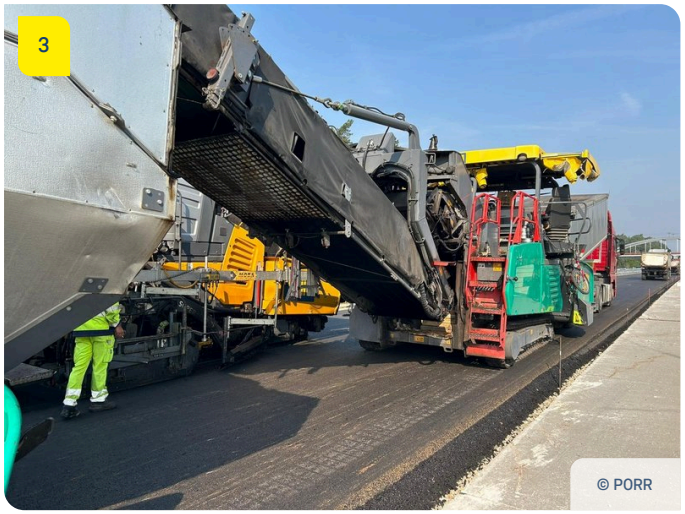


Image notes

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A polymer-modified bitumen emulsion just a few millimetres thick is used as a sealing layer and bonding agent. To ensure that it is not damaged, the pavers are equipped with a special spraying device – the sealing and paving are carried out in a single pass.

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After dismantling the old concrete cover, the subsoil must be profiled over an area of 81,350 m^2.

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PORR Verkehrswegebau BAB10

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On the A10 motorway between the Erkner junction and the Spreeau triangle, the Berlin/Eisenhüttenstadt branch of PORR Transport Route Engineering is replacing the existing concrete surface with an asphalt superstructure over a distance of around 5,200 metres in the direction of the Barnim triangle.

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Do you have questions about the project or would you like to learn more? Feel free to contact us for further information.

PORR GmbH & Co. KGaA
Walter-Gropius-Straße 23
80807 Munich
T +49 89 71001-0
E-Mail: info@porr.de