



Shell Bitumen

SOLUTIONS FOR TOUGH CONDITIONS



PROJECT: Hockenheimring Baden-Württemberg Racetrack

CITY/REGION: Hockenheim

COUNTRY: Germany



KEY FACTS

Benefits:

- Proven track record
- Durability
- Technical expertise

Application: Asphalt surfacing

Product Family: Shell Cariphalte

Client: Hockenheim-Ring Besitz GmbH

Contractor: KAM subsidiary of Deutag

Project Engineer: Tilke – Architects
Hart – Consultant

INTRODUCTION TO THE PROJECT

Germany's Hockenheimring Baden-Württemberg racing circuit opened in 1932 and seats 120,000 spectators. The famed racing circuit has hosted Formula One™ and Deutsche Tourenwagen Masters (DTM) races. The original circuit was considered too long (6.8 km) and impractical for spectators because various sections ran through dense woodland. In 2002, a 62 million euro rebuild resulted in a shorter circuit with more possibilities for overtaking and Shell Cariphalte Racetrack was chosen as the bitumen of choice for the resurfacing of the track. The track is still going strong even after many a champion has raced on it since then.

"The asphalt must have perfect evenness, be homogeneous and contain no black spots caused by bitumen rising to the surface. High quality, very clean aggregates must be used and the bitumen content must be carefully controlled; tolerances are much lower than those for public roads. The bitumen also needs to be very high quality. PMBs are used as they provide very high resistance against the aggregate being plucked out of the surface."

**Rainer Hart, Asphalt Consultant,
Hockenheim**

TECHNICAL AND LOGISTICAL CHALLENGES

Hockenheim's new circuit required a new asphalt surface. The binder chosen for the resurfacing was one of Shell's high-performance Polymer Modified Bitumens (PMBs), designed to meet the very demanding performance specifications required of asphalt racing surfaces by motor racing bodies like the FIA.

THE SOLUTION

Shell has a proven track record when it comes to motorsports racetracks. Through working with our customers around the world and learning from experience, we were able to develop a specific PMB for motor racing circuits – Shell Cariphalte Racetrack. The high cohesive strength of the binder is designed to allow it to withstand the horizontal shear forces generated when a race car accelerates or brakes into a corner, making Shell Cariphalte Racetrack an ideal solution for motorsports circuits. The Shell Cariphalte Racetrack used at Hockenheim was blended at a nearby plant to meet the track's requirements. Product qualities such as elastic recovery, penetration and softening point were all carefully controlled to meet the needs of the circuit's FIA Grade 1 licence.

THE RESULTS

Since the rebuilding work, spectators and drivers alike have had their Formula One Experiences at Hockenheim enhanced.

Shell Cariphalte Racetrack has been used at racetracks around the world such as; Sepang (Malaysia), Sakhir (Bahrain), Marina Bay Street Circuit (Singapore), Hockenheim (Germany) and Yas Marina (Abu Dhabi).

"Hockenheim is now a more exciting circuit. The grandstand has fantastic views and spectators will certainly get more enjoyment from all the improvements. And of course, the new asphalt track surface is better too. It has better evenness and more grip." **Rainer Hart, Asphalt Consultant,
Hockenheim**

FOR FURTHER INFORMATION

Please contact your Shell Bitumen representative or visit: www.shell.com/bitumen