



MotoPhalt®

A superior asphalt mix specifically designed for motor sport

MotoPhalt® is an asphalt mix developed to perform under the extreme conditions experienced in motor sport racing, such as Supercars and Karting. These events tend to inflict the most damage to the surface by transferring the immense stresses exerted by vehicles through the asphalt, especially when cornering.

What is MotoPhalt®?

MotoPhalt® is a proprietary dense-grade asphalt mix, specifically formulated to handle race conditions and minimise the potential for track surfacing failures. Race circuit failures include raveling or stone loss, rutting, shoving, cracking and delamination.

Any of these have the potential to damage cars, cause accidents, increase vehicle wear and tear, disrupt races and frustrate both drivers and spectators.

Fulton Hogan engaged the independent advice of the Australian Road Research Board (ARRB) to test MotoPhalt® against a range of leading alternative industry designs; with MotoPhalt® proving superior.



MotoPhalt® is a registered trademarked product of Fulton Hogan.

MotoPhalt®



Gold Coast City Circuit track laid by Fulton Hogan 2016.

What sets MotoPhalt® apart?

- Proven performance
- Meets extreme driving conditions (see table below)
- ARRB (Australian Road Research Board) endorses MotoPhalt® design
- Has a tight and smooth surface
- Performs on hot days
- Produced with specially formulated bitumen binder – MotoBind®

See below for a typical example of conditions that a racing pavement surface is expected to withstand:

Pressures involved in Supercar Racing	
1500 kg	Mass of a Supercar with driver
+1550 Nm	Torque applied to the surface at take-off
635+ brake hp	Power produced at a limited 7500 rpm
2.5G	Deceleration force applied to asphalt surfacing under braking in race
298 km/hour	Top speed
1.5G	Cornering force resisted at the tyre asphalt interface
+100°C	External tyre temperatures at contact point with asphalt
10	Tyre sets required by each car across a race weekend

Considering the figures above and the consequences of pavement failures in motor sport racing, it is clear why track asphalt surfacing needs special design consideration.

How MotoPhalt® works?

Asphalt mix designs for race track applications require specific design considerations. Extreme point loadings and shear stresses imparted to the surface from racing slicks and locked differentials spread extreme torsional forces across the pavement. For example, race cars tend to follow the racing line as close as possible and load up on one wheel as they pass through corners and particularly so on tight corners with rumble strips. This can lead to early stress of the asphalt pavement, which in some cases has led to surface failure and disruption to racing events.

MotoPhalt® is designed to perform:

- Mix design tailored to meet your motor track needs
- Produced with a superior specialty bitumen binder MotoBind® tough enough to resist high shear and torsional forces
- Reaches high level of compaction for a tight and smooth surface

Application of the MotoPhalt® system, using the strengthened MotoBind® bitumen, MotoBond® tack coat and MotoPhalt® asphalt, significantly reduces the potential for surfacing failure.



How to apply MotoPhalt®?

MotoPhalt® is laid using conventional paving equipment and processes, but it is completed to a higher standard of finish. The team at Fulton Hogan use their expertise to provide the highest standards of quality, safety and environmental awareness, whilst ensuring minimal track disruptions.

For further information or you can visit www.fultonhogan.com or contact your nearest Fulton Hogan office:

Queensland: +61 7 3827 7922
 New South Wales: +61 2 8795 2900
 Victoria: +61 3 8791 1111
 Tasmania: +61 3 6326 8440

South Australia: +61 8 8219 5810
 Northern Territory: +61 8 8930 3900
 Western Australia: +61 8 9454 0100