



ULTISHIELD

The ultimate fuel resisting asphalt





**Tarmac ULTISHIELD
delivers enhanced
toughness and fuel
resisting properties
providing outstanding
long term performance
in hostile environments.**

Busy commercial environments like service stations, bus stations and retail parks present a formidable challenge to paved asphalt surfaces.

The combined impact of fuel damage, from standing traffic and surface abrasion can often defeat conventional asphalts, resulting in repairs or resurfacing delays.

To meet this challenge, Tarmac has created a dense and durable asphalt designed to offer enhanced toughness and fuel resisting properties.

ULTISHIELD combines high quality aggregates and an advanced fuel resisting binder, in a dense asphalt that stays stronger for longer.

Faster to lay than concrete, ULTISHIELD offers maximum performance with minimal operational delays, making it the first choice solution for commercial environments from service stations to retail parks to bus stations and taxi ranks.

***ULTIMATE
SOLUTIONS***

ULTIMATE RESULTS

Enhanced fuel resistance

Superior resistance to fuel and oil spills, deformation and turning stresses from heavy vehicles.

Exceptional long term durability

With enhanced fuel and mechanical resistance, ULTISHIELD offers lasting performance even in heavily trafficked sites.

Faster completion

ULTISHIELD avoids the long curing times associated with concrete which makes it ideal for busy locations where long closures are not an option.

Outstanding weather resistance

The modified binder reduces softening in hot weather and the dense structure reduces the impact of water ingress which can lead to deterioration of conventional asphalts.

Improved surface texture and finish

The dense, highly resisting surface offers a practical alternative to concrete in many circumstances, with the smooth, even finish expected from an asphalt.

Better finish from accredited installers

At Tarmac, technical excellence comes as standard. ULTISHIELD is only available for installation by accredited contractors who have full access to our expert training and technical support, so you can be sure of a high quality finish.

HOW IT WORKS

ULTISHIELD is a dense engineered stone mastic asphalt that has been designed to resist the mechanical stresses associated with heavily trafficked industrial environments subject to high turning stresses and/or fuel spillages. Using high grade aggregate and a modified binder it achieves a dense finish with outstanding durability.

Exceptional fuel resistance

When exposed to fuel and oil, bitumen in traditional asphalts will rapidly degrade, reducing cohesive strength, loosening aggregate and seriously compromising the durability of the surface. The modified binder used in ULTISHIELD resists damage from fuel spillage. This means that ULTISHIELD maintains its durable finish for longer.

Better resistance to deformation and abrasion

Heavy vehicle traffic can present a challenge for any asphalt surface. When this surface has already been weakened by fuel damage this can result in rapid deterioration and time consuming repairs. The modified binder and dense structure of ULTISHIELD provides a rigid and highly durable surface that minimises long term maintenance.

PROVEN PERFORMANCE

Michaelwood Services, M5

CHALLENGE

Both fuel and oil damage as well as power assisted vehicle manoeuvring had caused deterioration to the heavily trafficked parking area.

SOLUTION

ULTISHIELD was recommended as offering improved fuel resistance and a highly durable surface that could be finished within the client's schedule. The brief also required the use of locally sourced aggregates.

RESULT

Despite the heavy traffic volumes at this busy service station, ULTISHIELD has delivered excellent performance.

Sunderland Bus Station

CHALLENGE

The combination of fuel damage and heavy vehicle use had caused significant long term damage to the existing surface on this heavily used site.

SOLUTION

When compared to alternative options, ULTISHIELD was chosen as offering proven long term durability and fuel resistance along with fast installation times that minimised disruption to passengers - a key consideration for the client.

RESULT

Since installation, ULTISHIELD has provided impressive resistance to the constant bus traffic and the inevitable oil spills in this busy city centre depot.

ULTIMATE PERFORMANCE
ULTISHIELD out-performs conventional asphalts, giving improved fuel resistance and long term durability in hostile environments.





**EXPERT ADVICE
AND SUPPORT**

TYPICAL APPLICATIONS

Designed to resist static loading and fuel/oil penetration, ULTISHIELD is a highly engineered asphalt surface with the following characteristics:

- 10mm aggregate size, dense SMA mixture
- Minimum layer thickness 40mm
- High binder content with modifier
- High quality aggregate

TECHNICAL DATA

ULTISHIELD	Typical Air Voids	Typical Water Sensitivity (ITSR)	Typical Stiffness (ITSM)	Typical Wheel Tracking	
				WTS _{AIR}	PRD _{AIR}
Standard	BS EN 12697-8	BS EN 12697-12	BS EN 12697-26	BS EN 12697-22 (Proc. B at 60°C)	
ULTISHIELD	2.5%	89%	4800MPa	0.05mm/10 ³ load cycles	3.4%
ULTISHIELD PMB			3000MPa		
10mm SMA 40/60	4.0%	80%	3400MPa	0.19mm/10 ³ load cycles	10.0%
AC 10 Close Surf 100/150	8.0%	80%	1300MPa	0.58mm/10 ³ load cycles	26.7%

OUR SUPPORT

FAQs

Where can I use ULTISHIELD?

ULTISHIELD is suitable for a wide range of applications where temporary fuel spillage and surface toughness are a key consideration. This includes service stations, bus depots, taxi ranks and lorry parks.

Why not use concrete?

Although concrete offers impressive fuel resistance, its long curing time makes it unsuitable for many applications. ULTISHIELD offers the smooth, even finish of a conventional asphalt but with greater fuel resistance.

What types of chemical does ULTISHIELD offer resistance to?

ULTISHIELD offers enhanced resistance to petroleum based products (aviation fuel, diesel, petrol, and oils) that are most likely to come into contact with asphalt surfaces.

Is ULTISHIELD available in any other colours?

ULTISHIELD is available in red as part of our standard product range. This provides demarcation of specific site areas or vehicle lanes.

How does ULTISHIELD achieve it's fuel resisting performance?

Use of a modified binder along with a dense structure produces a tough, fuel spillage resisting finish.

Do Tarmac supply other heavy duty asphalts?

Tarmac also supply ULTIPHALT HD a tough, stress resistant asphalt and ULTICRETE, a cement grouted, hybrid asphalt for extreme load resistance, which is available through our Contracts division.



MORE ANSWERS

For more information about Tarmac ULTISHIELD contact your local regional office or visit tarmac.com

T3 Tarmac Ground Floor T3 Trinity Park
Bickenhill Lane Birmingham B37 7ES

TARMAC.COM



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