



# **ULTI**PHALT HD

The ultimate heavy duty asphalt





**Tarmac ULTIPHALT HD is a specialist heavy duty asphalt designed for long term performance in challenging commercial environments.**

A fully laden heavy goods vehicle can weigh over forty tonnes. Many busy container ports and distribution centres are in constant use by these vehicles 24 hours a day, 365 days a year. The resulting forces are enough to cause most conventional asphalts to fail, risking expensive delays for repairs or resurfacing.

Tarmac recognise that extreme environments require specially designed solutions and have responded by developing a heavy duty asphalt designed for outstanding long term durability in the toughest conditions.

By combining high grade aggregates and a specialist modified binder it delivers proven long term durability in demanding environments, extending operational life cycles and minimising maintenance requirements.

***ULTIMATE  
SOLUTIONS***



# ULTIMATE RESULTS

## Ultimate resistance

High grade aggregates and a modified binder facilitate excellent compaction and strong aggregate interlock, thereby providing enhanced resistance to deformation and turning stresses from heavy vehicle movements.

## Exceptional control

Our stringent quality control procedures, from design to laying, ensure exceptional control over the quality and consistence of finished asphalt surfaces.

## Proven performance

A 10mm product laid 40mm thick, ULTIPHALT HD is proven to deliver lasting performance in the most challenging environments, including lorry parks, ports and distribution centres.

## Ultimate support

At Tarmac, technical excellence comes as standard. ULTIPHALT HD is available for installation by accredited contractors or by our own expert Contracting division who evaluate each site to ensure our clients get the right solution and then deliver it to the highest industry standards.

## HOW IT WORKS

***ULTIPHALT HD has been developed to give outstanding durability, under continuous use, in the most challenging environments.***

### Exceptional load resistance

Many ports and distribution centres are used continuously by heavy goods vehicles. Under these conditions, there is a high risk of permanent deformation and cracking of the surface course. Modern power assisted steering compounds the problem, generating massive surface abrasion, capable of tearing the aggregate from conventional binders.

The specialist modified binder and high quality aggregate in ULTIPHALT HD facilitates excellent aggregate interlock to produce a low texture surface with excellent structural performance and enhanced cohesion.

### Better resistance to deformation and abrasion

The low texture surface of ULTIPHALT HD and the associated denser structure has lower voids compared to standard SMAs, thereby providing enhanced scuffing resistance. The modified binder also reduces softening in hot weather to ensure an all year round rigid and stable surface.

# PROVEN PERFORMANCE

## *Mersey Gateway Container Port, Widnes*

### CHALLENGE

Tarmac were asked to advise on resurfacing of the road way and lorry park in this busy container port. The existing asphalt surface was suffering from severe deformation and surface abrasion due to extreme loading stresses and the movement of heavy vehicles.

### SOLUTION

The client required a surface that would deliver long term resistance even when in constant use by heavy vehicles. ULTIPHALT HD was proposed as the best solution to withstand the turning forces of the HGV movements. The modified binder provided surface toughness and along with the chosen aggregate, provided excellent cohesion and long term durability.

### RESULT

ULTIPHALT HD was initially supplied for the loading area, but after demonstrating excellent performance, it was also selected for the next phase of the project to resurface the outer link roads and main lorry park. The tough, dense surface has maintained its integrity, avoiding the problems of deformation and surface abrasion experienced with the previous asphalt surface. As a result it has helped to keep this busy port open and operating efficiently throughout the year.

### *ULTIMATE CONFIDENCE*

Tarmac has extensive experience in providing solutions tailored to the specific needs of industrial and commercial environments.



## EXPERT ADVICE AND SUPPORT

## TYPICAL APPLICATIONS

Designed to resist high turning stresses and surface abrasion, ULTIPHALT HD is a highly engineered stone mastic asphalt with the following characteristics:

- 10mm aggregate size, low texture SMA asphalt
- Modified binder
- Aggregate PSV selected specifically for each contract
- Minimum layer thickness 40mm
- Available in black or red

### TECHNICAL DATA

ULTIPHALT HD	Typical Air Voids	Typical Water Sensitivity (ITSR)	Typical Stiffness (ITSM)	Typical Wheel Tracking	
				WTS <sub>AIR</sub>	PRD <sub>AIR</sub>
Standard	BS EN 12697-8	BS EN 12697-12	BS EN 12697-26	BS EN 12697-22 (Proc. B at 60°C)	
ULTIPHALT HD	2.5%	85%	4500MPa	0.06mm/10 <sup>3</sup> load cycles	5.0%
10mm SMA 40/60	4.0%	80%	3400MPa	0.19mm/10 <sup>3</sup> load cycles	10.0%
AC 10 Close Surf 100/150	8.0%	80%	1300MPa	0.58mm/10 <sup>3</sup> load cycles	26.7%

## OUR SUPPORT

### FAQs

#### **Where can I use ULTIPHALT HD?**

ULTIPHALT HD is suitable for a wide range of heavy duty applications where physical resistance to high stresses and long term durability is a priority. This includes lorry parks, container ports, service stations and distribution centres.

#### **Does ULTIPHALT HD require specialised construction methods?**

ULTIPHALT HD has been designed to be laid using conventional construction methods. The modified binder helps to improve compaction for improved aggregate interlock and lower voids.

#### **How does ULTIPHALT HD achieve lasting resistance?**

High grade aggregates and a modified binder facilitate excellent compaction and strong aggregate interlock, for enhanced resistance to deformation and turning stresses from heavy vehicle movements.

#### **Does ULTIPHALT HD offer enhanced oil resistance?**

For superior fuel resistance Tarmac ULTISHIELD is recommended.

#### **Why is it better than standard asphalts?**

When faced with extreme loading, conventional asphalts can suffer from permanent surface deformation with visible rutting and cracking of the asphalt surface course. The modified binder in ULTIPHALT HD helps to resist such forces and retain the shape of the original surface.

#### **Is ULTIPHALT HD available in any other colours?**

ULTIPHALT HD is available in black or red as standard.

#### **Why not use concrete?**

Although concrete offers impressive resistance, its long curing times, noisy surface and dull, matt appearance make it unsuitable for many applications. ULTIPHALT HD offers the smooth, even finish of a conventional asphalt but with far higher resistance to stresses.

#### **Do Tarmac supply other heavy duty asphalts?**

Tarmac also supply ULTISHIELD for outstanding fuel resistance and ULTICRETE, a cement grouted, hybrid asphalt for extreme point loading resistance, which is available through our Contracting division.



## MORE ANSWERS

For more information about Tarmac ULTIPHALT HD contact your local regional office or visit [tarmac.com](http://tarmac.com)

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