



> Asphalt Solutions
Innovation keeps us on top

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Effective resource and waste management is at the heart of how we operate our UK asphalt plant network.

Product overview

Our high quality asphalt solutions have been developed to be the ideal choice for a wide range of surfacing applications, from major civil engineering projects to domestic driveways and footpaths.

The four product groups – Tuffgrip, Tuffpave, Durafalt and Hanson era® – have their own unique qualities and characteristics, and all are backed by the strength and durability of the Hanson brand, with a reputation built on more than 60 years of quality and service.

Asphalt sustainability

We have taken measures to reduce primary aggregates used in our products. Additionally, most of our plants now use reclaimed asphalt across the range. This is part of Hanson's sustainable approach.

We have also introduced 'moving floor' vehicles to our delivery fleet. Their remote controlled, 'no tipping' design allows for a more measured release of asphalt. As well as enhancing safety and improving tunnel and under-bridge access, their 40% larger capacity means fewer and more efficient road movements.

As part of our ongoing innovation and drive to be sustainable, we have developed a new greener asphalt solution – Hanson era®. Through a unique production process, Hanson era® reduces the carbon emissions associated with asphalt production for road-laying by up to 50%.

All of our asphalt solutions are accredited to the environmental standard ISO 14001 and to responsible sourcing standard BES 6001. They are also 'CE' marked in accordance with the Construction Products Regulation.

We also comply with quality management system ISO 9001 and have BBA approval for our thin surfacing products. Our Contracting team are also National Highway Sector Scheme 16-accredited.



> Tuff range



> Tuffgrip

Tuffgrip is our established thin surfacing system and is produced in accordance with SHW Clause 942. It was jointly developed with BP for highways and other paved areas.

It uses high quality Polished Stone Value (PSV) aggregates and our approved specially-developed Polymer Modified Binder (PMB).

Tuffgrip is tough on noise, skid resistance and wet weather spray. It is tough enough to stand up to heavy traffic yet provide an ultra-smooth ride. Tuffgrip is laid only by our Contracting division and comes with a five-year guarantee underwritten by the contractor (Clause 942).

The mix design and choice of aggregate size provide a texture depth that is retained throughout the life of the surfacing, and gives significant reduction in noise over more traditional surfacings, such as Hot Rolled Asphalt (HRA) and concrete. It is available in a range of aggregates and PSV.

Benefits

The main advantages of Tuffgrip when used as a maintenance treatment, either as inlay or overlay, or as a surface course for new construction, are:

- Restores texture and offers skid resistance
- Excellent resistance to deformation
- Enhanced ride quality
- Reduced noise
- Excellent spray reduction
- Provided as a system – Hanson manage the approval process

Applications

- Highways
- Major paved areas
- Local Authority Networks

Tuffgrip technical data

Coarse aggregate	
Los Angeles abrasion value	30 max
Aggregate abrasion value	As specified in SHW Clause 942 (Appendix 7.1)
Flakiness index	20 max (6mm 30max)
Nominal sizes	6mm; 10mm; 14mm
Binder	High performance Polymer Modified Binder (PMB)
Layer thickness	
Details of constituent quality and layer thickness shown below	
6mm nominal size	20 – 30mm
10mm nominal size	25 – 50mm
14mm nominal size	35 – 50mm
Surface texture (on installation)	
10mm medium texture	1.1 – 1.6mm
14mm medium texture	1.3 – 1.8mm
(All HA Clause 942 Level 3)	
Road and laboratory test results	
Torque bond	Typical figures +800 KPa
Noise reduction	HA Clause 942
Wheeltracking (BSEN 12697 – 22 procedure B category WTS Air 1,0)	HA Clause 942 Level 3
Water sensitivity (retained stiffness)	Minimum 80%
Stiffness	>2000 MPa (14/10mm) >1500 MPa (6mm)





> Tuffpave

Tuffpave is an approved (SHW Clause 942), polymer modified thin surfacing system that can be laid by any certified licensed laying contractor.

It uses the same distinctive ingredients as Tuffgrip, and performs to the same high standards on noise and spray reduction, as well as skid resistance, while delivering excellent ride quality.

It has been designed as a gap-graded mixture containing a high percentage of coarse aggregate bound by the Polymer Modified Binder (PMB). The coarse aggregate provides an interlocked framework giving excellent resistance to deformation, while the PMB ensures maximum durability. The mix design and choice of aggregate size provide a texture depth that is retained throughout the life of the surfacing, and gives significant reduction in noise over more traditional surfacings, such as Hot Rolled Asphalt (HRA) and concrete.

Benefits

The main advantages of Tuffpave when used as a maintenance treatment, either as inlay or overlay or as a surface course for new construction, are:

- Restores texture and skid resistance
- Excellent resistance to deformation
- Enhanced ride quality
- Excellent noise reduction
- Excellent spray reduction
- Provided as a system – Hanson manage the approval process

Applications

- Major highways
- Major paved areas
- Local Authority Networks



Tuffpave technical data

Coarse aggregate	
Los Angeles abrasion value	30 max
Aggregate abrasion value	As specified in SHW Clause 942 (Appendix 7.1)
Flakiness index	20 max (6mm 30max)
Nominal sizes	6mm; 10mm; 14mm
Binder	High performance Polymer Modified Binder (PMB)
Layer thickness	
Details of constituent quality and layer thickness shown below	
6mm nominal size	20 – 30mm
10mm nominal size	25 – 50mm
14mm nominal size	35 – 50mm
Surface texture (on installation)	
10mm medium texture	1.1 – 1.6 mm
14mm medium texture	1.3 – 1.8 mm
(All HA Clause 942 Level 3)	
Road and laboratory test results	
Torque bond	Typical figures +800 KPa
Noise reduction	HA Clause 942
Wheeltracking (BSEN 12697 – 22 procedure B category WTS Air 1,0)	HA Clause 942 Level 3
Water sensitivity (retained stiffness)	Minimum 80%
Stiffness	>1500 MPa (6mm) >2000 MPa (14/10mm)

The Tuffpave range includes:

- **Tuffdrive** – a durable material for residential driveways
- **Tuffdrain** – essentially developed for use in sports surfaces and filter drains at the edges of motorways and other major roads
- **Tuffflex** – a Polymer Modified Base/Binder course with excellent load spreading

> Tuffdrive

Tuffdrive is an asphalt surfacing material specially designed to withstand the rigours of power steering and heavy use on residential driveways and parking areas.

It is also ideally suited to new-build housing projects where a contractor wants to offer a high performance, durable, value for money driveway surface course.

Tuffdrive uses the same distinctive ingredients as our flagship brand Tuffgrip, including a specially-formulated polymer modified bitumen, and can be laid by any certified licensed laying contractor.

Installation: In accordance with BS 594987 and Hanson installation guide.

Benefits

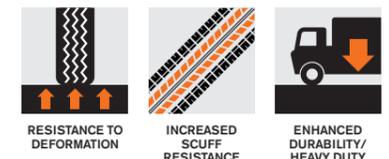
- Resistant to deformation
- Increases scuff resistance
- Cost-effective over the whole life

Applications

- Residential driveways
- Parking areas

Tuffdrive technical data

Coarse aggregate	
Los Angeles abrasion value	30 max
Aggregate abrasion value	10 max
Flakiness index	20 max (6mm 30max)
Nominal sizes	6mm; 10mm
Binder	High performance Polymer Modified Binder (PMB)
Layer thickness (recommended)	
6mm Tuffdrive	20mm to 30mm
10mm Tuffdrive	30mm to 40mm
Road and laboratory test results	
Wheeltracking (BSEN 12697 – 22 procedure B category WTS Air 1,0)	Wheeltracking Slope: 0.1mm/10 ³ cycles (typical)
Stiffness	3000 MPa (typical)





> Tuffdrain

Tuffdrain is an asphalt material developed for use in Sustainable Urban Drainage Systems (SUDS) and filter drains at the edges of motorways and other major roads.

The solution works within SUDS by managing rainfall on a property, either distributing it into the ground or storing it for use in grey-water applications.

Traditionally, single-sized, large aggregates have been used in roadside drains, but these stones can be dislodged by traffic running off the carriageway, with the consequent danger of accidents or injury. Based on open textured asphalt, Tuffdrain uses a Polymer Modified Binder (PMB) to provide a durable free-draining solution that will not be displaced by errant traffic.

Laid using a 'sidewinder' on a conventional paver, it replaces removed drainage stones to a depth of 150mm. Compacted by a pavement roller, the aggregate is locked together and further held by the excellent adhesive properties of the PMB. The material delivers up to 15 times better drainage than that specified for porous asphalt when measured by the hydraulic conductivity test. It also has inherent durability through the thick binder film.

Benefits

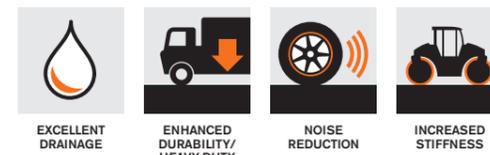
- Designed for excellent drainage/hydraulic conductivity
- The PMB offers durability
- Excellent noise reduction
- Increased stiffness

Applications

- Ideal for SUDS applications
- Filter drains on motorways and major roads

Tuffdrain technical data

Coarse aggregate	
Los Angeles abrasion value	30 max
Aggregate abrasion value	15 max
Flakiness index	20 max
Nominal sizes	10mm; 20mm; 32mm
Binder	High performance Polymer Modified Binder (PMB)
Road and laboratory test results	
Voids	10mm Vmin 14, 20mm Vmin 14
Stiffness	10mm 900 MPa (typical), 20mm 2000 MPa
Hydraulic conductivity	10mm 15,000 mm/hr (typical), 20mm 20,000 mm/hr



> Tufflex

High performance materials deliver a multi-layer crack resisting binder/surface course that is particularly suited to overlaying concrete carriageways.

Compared to traditional asphalt surfacing, Tufflex offers high deformation resistance and a low air void content. The solution also delivers Highways England's highest level of wheel rut resistance, level three.

Its design uses specialised bitumens and incorporates best-in-class polymer technology to give it a flexibility that enhances fatigue resistance by absorbing traffic vibration. With its relatively low surface texture and extreme density, it also effectively protects the surface it covers from water damage.

It is available in 10mm, 14mm and 20mm nominal sizes and can be laid between 30mm and 150mm thick using a traditional asphalt paver with a 6-10 tonne roller. Special attention should be given to compaction at the joints, which should be cut and painted with a bituminous joint paint to maintain resistance to the tensile stresses of turning vehicles.

Please note: 7 days' notice required to stock specialist binder.

Benefits

- A best-in-class flexible Polymer Modified Binder (PMB)
- Road engineers will benefit from the option of a multi-layer crack resisting asphalt solution
- Cost-effective over the whole life
- Prevents water ingress
- Highly sustainable and durable, and offers improved performance over conventional asphalt materials
- Increased stiffness

Applications

- Overlay of concrete carriageways
- Urban roads
- Rural roads
- Industrial areas

Tufflex technical data

Material property	Test spec	Typical result
Air voids	BS EN 12697-5, 6 & 8	≤ 5%
Voids at refusal	BS EN 12697-5, 6, 8 & 32	≤ 2%
Stiffness	BS EN 12697-26 Annex C	3000 MPa (Tufflex) 7000 MPa (Tufflex HD)
Wheeltracking	BS EN 12697-22 SD, Proc. B, in air	Rut depth: 3mm Wheeltracking Slope: 0.1mm/10 ³ cycles
Water Sensitivity (Duriez)	NF P98-251-1	0.85
Fatigue (ITFT)	BS DD ABF	≥100000 cycles to failure @ 100µstrain
Surface texture (on installation)		
10mm Tufflex	-	+0.7mm*
14mm Tufflex	-	Circa 1.0mm*

*Typical value for surface texture. Please contact the Hanson Asphalt technical team at asphalt@hanson.com for further information.





> Tufflex HD

Tufflex HD is a unique asphalt surfacing solution designed for very heavy, slow moving traffic. It contains a Polymer Modified Binder (PMB) with an exceptionally high softening point.

> Tufflex HD/+

A PMB is at the heart of a unique solution that offers good protection against damage caused by heavy, slow moving traffic. The product also contains fuel resisting properties.

Benefits

The main advantages of Tufflex HD/+ are:

- Cost-effective over the whole life
- High deformation resistance
- Low air void which prevents water ingress
- Fuel resisting properties
- Good workability
- Good load spreading ability from very heavy, slow moving traffic at higher temperatures to prevent wheel track deformation
- Increased stiffness

Applications

- Carriageways
- Farm floors/composting areas
- Industrial areas
- Lorry parks and bus stations



RESISTANCE TO DEFORMATION

FUEL RESISTING PROPERTIES

ENHANCED DURABILITY/HEAVY DUTY

INCREASED STIFFNESS



> Durafalt range



> Durafalt

Durafalt is a high performance SHW Clause 942 approved surface course system laid by any Hanson certified licensed laying contractor.

The Stone Mastic Asphalt (SMA) derived mix uses 40/60 pen grade bitumen and is suitable for both road maintenance and new road construction.

Durafalt is derived from our SMA-type mixes and is available in 6mm, 10mm and 14mm nominal sizes and a range of Polished Stone Values (PSVs).

The high coarse aggregate content provides an interlocked framework giving good resistance to deformation while, the rich mastic ensures maximum durability. The mix design and choice of aggregate size provide a texture depth that is retained in accordance with Clause 921, and gives significant noise reduction over more traditional surfacings, such as Hot Rolled Asphalt (HRA) and concrete.

Benefits

The main advantages of Durafalt are:

- Restores texture and skid resistance
- Excellent resistance to deformation
- Enhanced ride quality
- Good noise reduction
- Reduced spray
- Provided as a system – Hanson manage the approval process

Applications

- Motorways
- Trunk roads
- Local Authority Networks

Durafalt technical data

Coarse aggregate	
Los Angeles abrasion value	30 max
Aggregate abrasion value	As specified in SHW Clause 942 (Appendix 7.1)
Flakiness index	20 max (6mm 30max)
Nominal sizes	6mm; 10mm; 14mm
Binder	40/60 pen
Additive	Cellulose fibre
Layer thickness	
Details of constituent quality and layer thickness shown below	
6mm nominal size	20 – 30mm
10mm nominal size	25 – 50mm
14mm nominal size	35 – 50mm
Surface texture (on installation)	
10mm	1.1 – 1.6 mm (HA Clause 942 Level 2)
14mm	1.3 – 1.8 mm (HA Clause 942 Level 3)
Road and laboratory test results	
Torque bond	> 400 kPa
Wheeltracking (BSEN 12697 – 22 procedure B category WTS Air 1,0)	Highways England Clause 942 Level 3
Water sensitivity (retained stiffness)	Minimum 80%
Stiffness	>2500 MPa
Noise	Highways England Clause 942 Level 3





➤ Duraflex

A highly flexible, yet deformation resistant multi-layer surface/binder course treatment for roads where cracking is an issue.

The mix also delivers Highways England's highest rating for anti-rutting effectiveness, level three.

It uses a Polymer Modified Binder (PMB) and has a relatively low surface texture that is extremely dense, protecting lower layers from water ingress.

It is available in 10mm and 14mm nominal sizes and can be laid between 35mm and 100mm thick.

The solution is available in two formats:

Duraflex Surf – designed for traditional surfacing, this product offers excellent deformation and crack resistance and outperforms traditional Stone Mastic Asphalts (SMA).

Texture depth typically 1.1 to 1.5mm

DuraFlex County – for rural applications where single hit, full depth installations are required.

Texture depth typically 1.0mm

Laying should be carried out in line with specification BS 594987 using traditional equipment.

Benefits

- Achieves Highways England's highest wheel rutting resistance, level three
- Deformation resistance
- Greater noise reduction compared to Hot Rolled Asphalt (HRA) with Pre-Coated Chippings (PCC)
- Better spray reduction than HRA and PCC

Applications

- Low speed residential roads
- Roundabouts
- Industrial and commercial use
- High stress sites

Duraflex technical data

Material property	Typical result
Air voids	≤ 5%
Stiffness	2250 MPa (typical)
Nominal sizes	14mm; 10mm
Binder	High performance Polymer Modified Binder (PMB)
Layer thickness (recommended)	35mm to 100mm
Surface texture (sand patch, immediately after laying)	1.0 – 1.5mm
Wheeltracking (BSEN 12697 – 22 procedure B category WTS Air 1,0)	Wheeltracking Slope: 0.0mm/10 ³ cycles
Water sensitivity (retained stiffness)	Minimum 80%



➤ Durafalt-fill

Durafalt-fill is a one-part asphalt product for efficient pothole repairs (non-Clause 942) that bonds to existing surfaces.

It is designed to be used in layers from 30mm to 100mm not only to repair potholes, but also to patch anything from driveways to carriageways. It has been specially developed to be easy to use and hard-wearing.

Benefits

- Cost-effective over the whole life
- Deformation resistance
- Increased stiffness
- Longer lasting solution to road repairs than traditional asphalt or concrete
- Reduced wastage
- Improved efficiency

Applications

- Pothole repairs
- Road surface patching
- Lorry parks and bus stations

Durafalt-fill technical data

Material property	Typical result
Air voids	≤ 6%
Stiffness	2200 MPa (typical)
Nominal sizes	10mm
Binder	Modified pen grade
Layer thickness (recommended)	30mm to 100mm
Wheeltracking (BSEN 12697 – 22 procedure B category WTS Air 1,0)	Wheeltracking Slope: 0.3mm/10 ³ cycles



➤ Durafalt HD

A strong and durable surface (non-Clause 942) designed to withstand heavy load traffic.

➤ Durafalt HD/+

A combined solution (non-Clause 942) that contains fuel resisting properties and is designed to withstand heavy load traffic.

Benefits

- Cost-effective over the whole life
- High deformation resistance
- Good noise reduction
- Reduced spray
- Fuel resisting properties
- Has a resistance to elevated temperatures from chemical attacks from leachates
- Good workability
- Enhanced ride
- Good load spreading ability from very heavy slow moving traffic at higher temperatures to prevent wheel track deformation

Applications

- Carriageways
- Major paved areas
- Industrial areas

Please note: 7 days' notice required to stock specialist binder.



> Countyfalt

Countyfalt is a close-textured, one layer application which is ideally suited to rural roads where a low textured and deformation resistant single layer/binder course treatment is required.

It was designed following a request from a local authority for a cost-effective, single layer solution.

It utilises locally-sourced aggregates and is also well suited to rural roads, housing estates, car and caravan parks. Countyfalt can essentially be used on any application.

The material has a low surface texture and low air voids, which results in material that doesn't segregate like traditional binder course materials, therefore protecting lower layers from water ingress.

Countyfalt is available in 10mm, 14mm and 20mm sizes and is laid using conventional paving equipment in line with BS 594987.

Benefits

The main advantages of Countyfalt when used as a maintenance treatment, either as inlay or overlay or as a surface course for new construction, are:

- Dense asphalt concrete grading, low voids
- Lower texture – around 1mm
- Prevents water ingress
- Dense grading enhances fatigue resistance
- Resistance to deformation
- Sustainable product

Applications

- Rural roads/class C and D
- Housing estates
- Car and caravan parks

Countyfalt technical data

Coarse aggregate	
Los Angeles abrasion value	30 max
Aggregate abrasion value	10 max
Flakiness index	20 max (6mm 30max)
Nominal sizes	6mm; 10mm; 14mm
Binder	40/60 pen
Layer thickness	
30mm to 120mm	
Surface texture (on installation)	
10mm Countyfalt	+0.7mm*
14mm Countyfalt	Circa 1.0mm*
Typical performance figures	
Surface texture (sand patch, immediately after laying)	1.0mm (typical)
Wheeltracking (BSEN 12697 – 22 procedure B category WTS Air 1,0)	Wheeltracking Slope: 0.2mm/10 ³ cycles
Water sensitivity (retained stiffness)	Minimum 80%
Stiffness	3000 MPa (depending on binder grade)

*Typical value for surface texture. Please contact the Hanson Asphalt technical team at asphalt@hanson.com for further information.



PREVENTS
WATER INGRESS

FATIGUE
RESISTANCE

RESISTANCE TO
DEFORMATION

> Courtfalt

Courtfalt is a premium asphalt product designed specifically for sports surfacings.

It is available in two different versions:

6mm Courtfalt

Applications: Tennis courts

A free-draining open graded asphalt concrete (AC), which is mixed using 100/150 or 160/220 binder (Polymer Modified Binder option is also available). The product must be laid on a porous, free-draining base layers.

6mm Courtfalt Multi

Applications: Multi-Use Games Areas (MUGAs)

A free-draining AC, which is mixed using 100/150 pen binder. It offers improved performance and durability compared to standard open graded AC products. The product is manufactured with a slightly denser grading than the Courtfalt Tennis Court material.

Installation: Must be carried out by a competent sports surfacing specialist contractor on free-draining base layers.

Benefits

- Guaranteed drainage properties
- Offers improved performance and durability compared with standard open graded AC products

Applications

- Tennis courts
- MUGAs i.e. five-a-side pitches and playgrounds



EXCELLENT
DRAINAGE

ENHANCED
DURABILITY/
HEAVY DUTY

> Hanson era[®]



Hanson
HEIDELBERGCEMENTGroup

> Hanson era[®]

Our energy-reducing asphalt helps you meet the sustainability targets of today's road building projects.

Its micro-foaming method cuts the level of carbon emissions associated with asphalt production for road laying by up to 50%, while enhancing durability and improving health and safety for contractors.

For greater sustainability, the mix can use up to 50% recycled material during preparation and it is also 100% recyclable after use.

Benefits

- Enhanced durability
- Early opening to traffic
- Reduced binder ageing
- Includes recycled content
- Improved health and safety
- 50% reduction in CO₂ emissions
- Technical support service available
- Faster completion of resurfacing work
- Available from selected Hanson asphalt plants

Applications

- Motorways
- All major roads – most asphalt solutions



era[®]
today's greener asphalt



ENHANCED
DURABILITY/
HEAVY DUTY



INCLUDES
RECYCLED
CONTENT

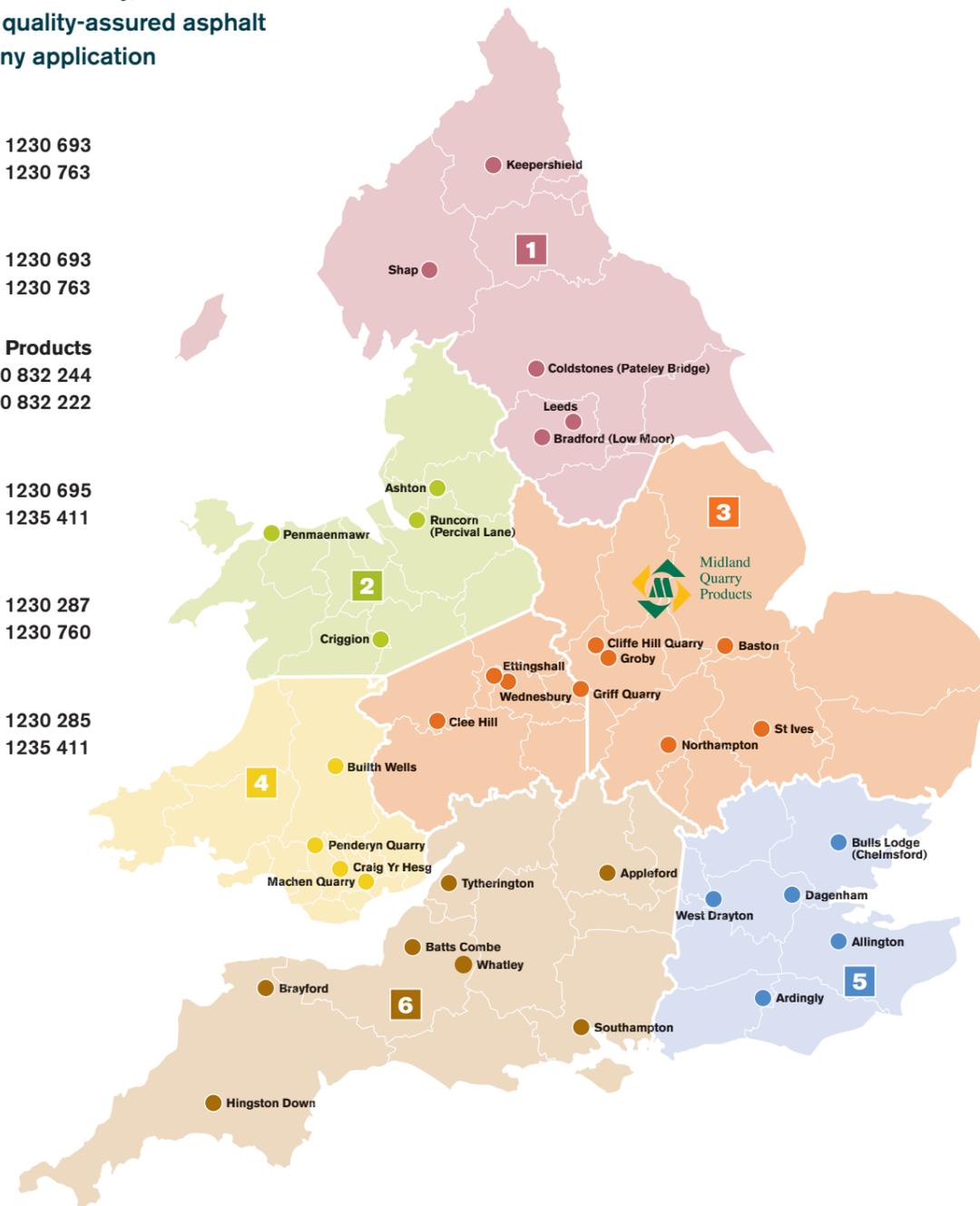


50% REDUCTION
IN CO₂

Hanson Asphalt – a national business with a local focus

From sites across the country, Hanson Asphalt produces quality-assured asphalt designed to suit any application

- 1 North**
Sales 0330 1230 693
Orders 0330 1230 763
- 2 North Wales**
Sales 0330 1230 693
Orders 0330 1230 763
- 3 Midland Quarry Products**
Sales 01530 832 244
Orders 01530 832 222
- 4 South Wales**
Sales 0330 1230 695
Orders 0330 1235 411
- 5 South East**
Sales 0330 1230 287
Orders 0330 1230 760
- 6 South West**
Sales 0330 1230 285
Orders 0330 1235 411



Hanson UK is a leading supplier of heavy building materials to the construction industry.

We produce aggregates (crushed rock, sand and gravel), ready-mixed concrete, asphalt, cement and cement-related materials. We are part of the HeidelbergCement Group, which has leading global positions in aggregates, cement and concrete. Hanson UK is split into four business lines – aggregates, concrete, asphalt and contracting and cement – which together operate around 300 manufacturing sites and employ over 3,500 people.

For detailed information on all areas of Hanson and our products visit hanson.co.uk

BULK CEMENT

- Regen (GGBS)
- Grey
- White



AGGREGATES

- Sand and gravel
- Crushed rock
- Bulk decorative aggregates
- Agricultural lime
- Rock armour
- Silica sand

ASPHALT

- Era® – low temperature asphalt
- Durafalt
- Tuffgrip
- Tuffpave



CONCRETE

- EcoPlus
- Grey – CEM I, II, III
- Ready-mixed concrete
- Ready-mixed mortar
- Screed
- Coloured concrete – Colourcrete
- Piling concrete – EasyPile
- Watertight concrete
- Sprayed concrete
- Reinforced concrete – Fibrecrete



PACKED PRODUCTS

- Cement
- Ready-to-use mortar
- Ready-to-use concrete
- Asphalt
- Construction aggregates
- Decorative aggregates
- Sands
- Rock salt



CONTRACTING

- Highway maintenance
- Road surfacing

BATH & PORTLAND STONE

- Bath stone and finished masonry



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