

BREEDONDriveway IS A PROPRIETARY MATERIAL CONTAINING MODIFIERS TO IMPROVE DURABILITY AND WORKABILITY.

Stone Mastic Asphalts provide durable surfaces for parking areas, but due to their nature, are difficult to hand lay and sufficiently compact. Designed on Stone Mastic Asphalt Technology, BREEDONDriveway is a proprietary material containing modifiers to improve durability and workability, providing a smooth, homogeneous finish which will provide an excellent, hard-wearing surfacing for many years. Available in 6mm or 10mm nominal size, BREEDONDriveway can also be supplied as a coloured product.

APPLICATIONS

- Driveways
- New build housing estates
- Light traffic accesses
- Parking zones
- Hand lay work
- Hard play areas

TECHNICAL DATA

Asphalt materials traditionally used to construct driveways are no longer able to cope with the shearing stresses modern vehicles impart on the surface whilst manoeuvring (particularly during hot weather).

When compared with asphalt concretes, BREEDONDriveway significantly improves resistance to marking and fretting, and has been successfully used in parking regions for years.

BREEDONDriveway substantially improves the scuffing resistance when compared with dense or close graded Asphalt Concretes, and 'standard' Stone Mastic Asphalts. The Transport Research Laboratory (TRL) completed a scuffing evaluation (using test method TRL 176, Appendix G, at 45°C) the results of which are shown below:

Material	Mass Loss (grams)	Erosion Index*
6mm Dense Asphalt Concrete	23.0	6
6mm Stone Mastic Asphalt	1.8	3
6mm BREEDONDriveway	0.3	0
10mm Close graded Asphalt Concrete	6.4	12
10mm BREEDONDriveway	1.2	1

* The erosion index will be 0 for a specimen on which the surface is fully intact after testing, and 30 for a specimen on which the surface has been completely destroyed.

Durability has been further confirmed by resistance to permanent deformation testing. When tested in accordance with BS EN 12697-22 (small device, procedure B) at 60°C, the mean wheel track slope was found to be 0.1mm/1,000 load cycles, suitable for very heavily stressed sites requiring high rut resistance (Classification 2 of Table D.2 in PD 6691).

CONSTRUCTION

The recommended finished layer depths are as follows:

Largest Nominal Aggregate Size (mm)	Nominal Layer Thickness (mm)	Minimum Thickness at Any Point (mm)
6	25 - 40	20
10	30 - 50	25



- BREEDONDriveway can be hand laid or with a paver using traditional methods. The underlying layer(s) must be of sufficient strength for the application.
- Laying must not be carried out if standing water, ice, mud, dirt, or loose material is present on the surface to be covered.
- New driveway constructions typically require 50 to 60mm of 20mm Asphalt Concrete binder course to be laid onto well compacted sub-base (Type 1) to receive the BREEDONDriveway surface course.
- Installation must cease when the air temperature reaches 0°C on a falling thermometer.
- A bitumen emulsion (tack or bond coat) must be evenly applied at a rate of 0.3 to 0.4 l/m² to the underlying layer prior to surfacing to ensure adequate bonding.
- Compaction must be completed with a minimum three tonne deadweight tandem roller (e.g. Bomag 120), or a vibratory roller which provides the same compactive effort.
- A minimum of eight roller passes across all areas of the surface are required whilst the material is still compactible above 110°C.

BENEFITS

- High durability and scuffing resistance to power steering when compared with Asphalt Concretes.
- Enhanced fuel and antifreeze resistance compared to conventional surfacing materials.
- Increased workability and compatibility compared to 'standard' SMA products.
- Good rate of spread.
- Smooth, uniform finish.
- Increased haulage range (ideal for collect customers who intend to visit multiple sites).
- Minimal maintenance required.
- Area can be opened to traffic once the centre of the layer has cooled to $\leq 40^{\circ}\text{C}$, although for turning regions, a minimum time of 24 hours without trafficking is strongly recommended (this period should be increased during periods of hot weather).
- When used to construct recreational areas, it can be played on throughout the year.
- Relatively high softening point, reducing the risk of damage.
- Available as a coloured material.

MAINTENANCE AND REPAIR

BREEDONDriveway is not subject to any specialised routine maintenance processes, although the following procedures should be followed:

- Wherever possible, vehicles shall be moving when the wheels are turned.
- If practicable, vehicles shall be parked in different positions.
- Heavy vehicles, trailers, caravans and ladders with small footprints should be parked on wooden boards to disperse the loading.
- Fuel spillages should be removed immediately (sand, sorbents such as cat litter, oil absorbent pads and spill kits can be useful for this task).
- Any loose aggregate particles should be brushed and removed from the surface to prevent abrasion.

Major repairs

If possible, any damaged areas are to be removed by planing to the appropriate depth to provide a minimum length of 15m for paver resurfacing. Alternatively, the section to be replaced can be removed and re-laid by hand. The sections will be resurfaced using material to the same specification.

Minor repairs

- For aesthetic reasons, it is often preferable to replace large areas, rather than complete minor repairs.
- Minor repairs can be carried out by cutting out the damaged section

- and replacing it with a material of suitable specification.
- A K1-40 (C40 B 4) or K1-60 (C60 B 4) tack coat, or an acceptable proprietary bond coat, will be used on the receiving substrate.
- Wherever possible, a diamond patch reinstatement shall be used, extending a minimum of 0.25m beyond the damaged section.
- Joints must be saw cut vertical, cleaned and painted with a thick uniform coating of hot bitumen, hot elastomeric polymer modified bituminous binder, or cold applied thixotropic bituminous compound prior to laying.

WHY CHOOSE BREEDON PROPRIETARY MATERIALS?

The Proprietary Materials offered by Breedon are extensively designed and rigorously tested to exceed the performances of traditionally used asphalts in specific applications. Our Proprietary Materials often include additives to achieve these high levels of operation.

PRECAUTIONS AND LIMITATIONS

Asphalt remains relatively soft for up to one year after laying; until it has time to oxidise and harden (i.e. elasticity is reduced). It is recommended that the surface is not trafficked for at least 24 hours (longer in hot weather) following installation, when it is most susceptible to damage. When trafficked by vehicles, it is recommended that they are moving when the wheels are turned. If a vehicle is stationary when tyres are turned (particularly with modern power steering), the asphalt can be displaced and marked by stresses applied at that particular point. It is also recommended that (wherever possible) vehicles are parked in different positions to avoid marking the asphalt, and heavy vehicles, trailers, plant, machinery and ladders with small footprints are parked on



wooden boards to disperse the loading. Fuel spillages should also be contained and cleaned up as soon as possible as these will compromise durability. Recommended procedure for removing diesel spillages is as follows:

- Stem the leak.
- If necessary, contain the spillage by deploying booms around the source and block any drains.
- Apply absorbent granules (e.g. cat litter) or sand to the spillage area.
- Sweep up the absorbent granules and dispose of in accordance with environmental regulations.
- Scrub the surface using a mild detergent. Any effluent resulting from the clean-up activity must not be washed into surface water drains as it is an offence under the Water Resources Act 1991.

QUANTITY REQUIRED

As a guide, please refer to the Material Calculator on our website (www.breedongroup.com).

AVAILABILITY

BREEDONDriveway can be laid all year round due to its improved workability (depending on climatic conditions), and may be installed by Breedon or experienced Contractors.

TO DISCUSS YOUR PROJECT REQUIREMENTS, AND FOR MORE INFORMATION ABOUT OUR PRODUCTS CONTACT:

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The information given in this technical datasheet is based on our current knowledge and is intended to provide general notes on our products and their uses. Breedon Group plc endeavours to ensure that the information given is accurate but accept no liability for its use or its suitability for a particular application because of the product being used by the third party without our supervision.

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