

## Leaders in low carbon, recycled cold-lay asphalt solutions











## OUR COMMITMENT

Aggregate Industries is committed to developing innovative low carbon pavement solutions to assist in the immediate and sustained action that will lead to the desired decarbonisation of the UK's roads network. We are changing the way we construct by deploying the latest, high quality, material solutions and technical innovations to reduce carbon year-on-year across all our operations on our journey to Net Zero carbon.

Driven by our purpose to build progress for people and the planet, we are driving the circular economy with green pavement solutions such as Foamix and Foamix Eco that offer a reduced reliance on expensive and finite virgin aggregate and/or asphalt products to make the most of taxpayer money and typically deliver c.45% carbon reduction in Foamix or carbon neutral status if Foamix Eco is chosen.

# WHAT IS FOAMIX ASPHALT?

Foamix is a foamed asphalt commonly used in pavement construction. Manufactured as a cold mix, it contains a high recycled asphalt content resulting in a low manufacturing carbon footprint. It is manufactured to a high level of control and incorporates **up to 92% recycled materials** (reclaimed asphalt planings (RAP), plus bitumen, cement and water.

Using our fleet of OCL Regeneration mobile mixing plants and Sitebatch Technologies, Foamix and Foamix Eco offer a cost-effective, sustainable solution to our customers for the construction, repair and maintenance of new or existing pavements whilst maximising the use of locally sourced recycled materials. It is laid and compacted like normal asphalt (only cold), without the need for any specialist paver or labour.

"DRIVEN BY OUR PURPOSE TO BUILD PROGRESS FOR PEOPLE AND THE PLANET, WE ARE DRIVING THE CIRCULAR ECONOMY WITH SOLUTIONS SUCH AS FOAMIX AND FOAMIX ECO"



## **HOW FOAMIX** IS MADE

#### FOAMIX COMPRISES OF



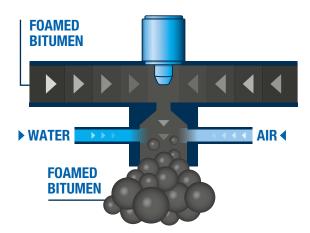






3% bitumen





#### **DESIGN STANDARDS**

Like for like, Foamix long-term stiffness equates to that of normal asphalts.

Table 7.2 TRL 611 SHW 948 & CD226 (HD26/06)

between 3100-4700MPa; Footways normally 1900MPa or less).

#### Waste streams that are viable for recycled product manufacture include:

- Excavated road and footpath subbase layers
- Crushed concrete, flags, edgings & kerbs
- Excavated HBM/CBGM
- Non-hazardous planings
- Asphalt planings
- Tar-bound planings

Cold water and air are injected into hot bitumen at high pressure resulting in 'foaming' which in turn increases bitumen volume and reduces viscosity for a short period to enable the coating of cold damp aggregate.

#### **FGAMIX FOAMIX** Stiffness Minimum long term **Asphalt Material** stiffness value Grade **HRA/DBM 190 B**1 1900MPa 1900MPa **B2** 2500MPa **DBM 125** 2500MPa 3100MPa **HRA 50** 3100MPa **DBM/HDM** 50 4700MPa >4700MPa (Typical carriageway stiffness for example would be designed to be

#### IT HAS NEVER BEEN **MORE IMPORTANT** TO MAKE SUSTAINABLE AND ETHICAL CHOICES.

As part of the Aggregate Industries sustainability strategy, we have identified products that are responsibly sourced, energy efficient and environmentally friendly.



### **APPLICATIONS**

The Foamix range can be applied directly onto the subgrade layer (ie: Type 1) generating additional time/cost efficiencies. Manufactured Foamix and Foamix Eco can be immediately placed and compacted on site or it can be stockpiled for later use, extending working times ensuring continued supply.

Using our mobile mixing plant, we can encapsulate hazardous tar-bound planings from site as the Foamix range; this repurposes the contaminated arisings locally rendering them safe for re-use in construction and mitigates costly specialist disposal charges and delivers a carbon friendly, greener, sustainable solution to our clients.

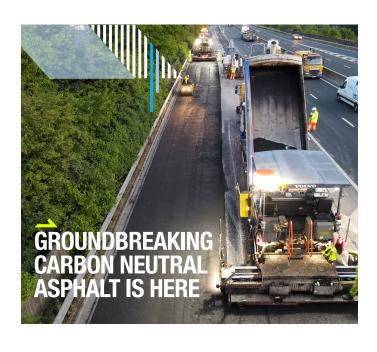
#### **IDEAL FOR:**

- Major and minor road construction schemes.
- Haunch repairs
- ▶ Trench reinstatement
- Parking areas
- Cycle tracks
- Footpath
- Local housing estate roads

### DO YOU REQUIRE ANY SPECIALIST TOOLS OR EQUIPMENT?

Foamix Eco can be manufactured and laid onsite where construction is taking place using Aggregate Industries' OCL Regeneration mobile mixing plants or Sitebatch Technologies®, meaning we can re-process locally sourced planings from the existing road asset – either onsite or at a nearby location – ensuring it can be placed, compacted, and put into immediate use. This significantly minimises HGV movements across the local road network, construction times, user disruption and delivers a significantly lower scheme carbon footprint.

Foamix Eco can be laid in one single lift up to 150mm thick using conventional surfacing equipment and laying techniques and does not require any additional specialist labour.





## WHAT IS FOAMIX ECO?

Foamix Eco is the groundbreaking carbon neutral evolution of Foamix.

Through extensive R&D developments with the whole supply chain, Foamix Eco represents a step change in infrastructure construction that is helping us achieve our net zero ambitions.

Made using carbon negative aggregates and biogenic binder, the reduced carbon footprint means we can deliver a carbon neutral status across A1-A3, with potential to offer stages A4 and A5.

Each project will be assessed on an individual basis to ensure carbon neutral can be achieved.







## WHY CHOOSE FOAMIX?

#### **QUALITY**

You can specify with confidence - the Foamix range is currently compliant with Specification for Highways Works Clause 948 Ex Situ Cold Recycled Bound Materials and BS 9228:2021. We follow industry standards for for quality control, including UKAS Testing Schedules.

#### **LONGEVITY**

The layers in the Foamix range are not prone to cracking as a result of ageing; it brings greater bonding properties due to the RAP % used.

#### **SAFER**

Manufactured cold, the Foamix range significantly reduces nuisance fuming, odour and steam on site; material burn risks are eliminated, visibility is improved and operatives benefit from improved working conditions overall.

### PUBLIC DISRUPTION MINIMISED

Laid cold, the Foamix range can be trafficked immediately enabling earlier reopening of carriageways to the travelling public, resulting in less traffic disruption and reduced build cost, making the most of taxpayers money.

#### **CARBON**

The Foamix range requires less energy to manufacture than conventional asphalt, giving a lower carbon footprint.

The average saving over Hot Mix Asphalt across constituent parts c>45% approx.

Foamix Eco's unique production mix and onsite recycling, can deliver a carbon neutral result across stages A1 - A5 in the building life cycle. Drastically reducing the total carbon footprint of any infrastructure project.



# WANT TO KNOW MORE?

Ask your sales representative for further details. Visit **www.aggregate.com/foamix** for more information.

If you would like to speak to our technical team, please email **contracting@aggregate.com** 





