

Today's choice

The specification of Warm Mix Asphalts has often been stimulated in overseas markets by the use of incentivised procurement. Bonuses for producers and contractors on temperature reduction are helping to drive their use and highways authorities, unions and industry all recognise the environmental, safety and performance benefits. It's time to catch up and made WMA use in the UK the norm, not the exception.

Find out more at:
www.youtube.com/user/MineralProducts1

**Warm Mix Asphalt -
tomorrow's asphalt, here today.**



Tomorrow's asphalt, here today



Warm Mix Asphalt production

Asphalt technology has come a long way since its earliest use in road construction. A more recent step forward has come with the development of modern Warm Mix Asphalts.

Warm Mix Asphalt (WMA) now accounts for significant volumes of asphalt worldwide, including over a third of production in the USA and is increasingly specified across Europe. However, it remains largely under-utilised in the UK.

It provides a combination of environmental, performance and safety benefits, while delivering the equivalent or improved performance to traditional Hot Mix Asphalt (HMA).

The simple principle behind WMA technologies is to manufacture the asphalt at lower temperatures, thereby using less energy and delivering carbon savings.

Warm Mix Asphalts are produced at temperatures up to 40°C lower than hot mixes. Through the application of technologies such as bitumen foaming or the use of additives, the necessary workability and compactability of the material is maintained, without reducing performance.

Limited modification of existing production plant is needed and WMAs can be laid using current paving equipment.

Warm Mix Asphalt benefits

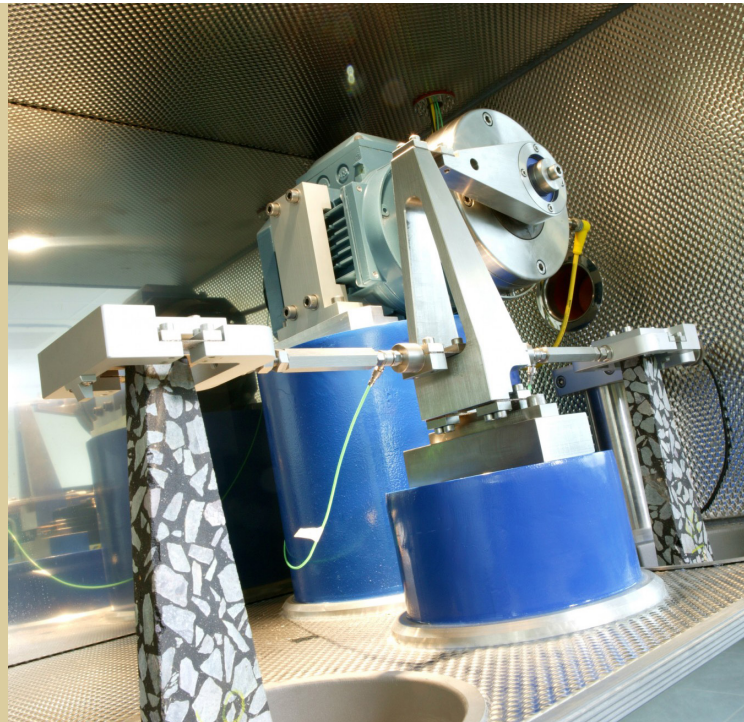
■ **Environmental:** Carbon reduction lies at the heart of the Government's construction strategy as it works to achieve its emissions reduction targets and move the UK to a low-carbon economy. WMA reflects this approach as its production requires less energy than hot mixes.

The lower mixing and paving temperatures can cut fume generation by around 50% for each 10°C reduction in temperature.

■ **Safety:** A cut in fumes makes WMA the safer and healthier option for the highways workforce. Lower temperatures provide cooler working conditions while less steam means better visibility for night-time and winter working.

Facts and figures:

- The use of Warm Mix Asphalt can **reduce the use of carbon fuels**
- WMA is produced at temperatures 40°C lower than hot mixes, **using less energy**
- Lower mixing and paving temperatures for WMA can **cut fume generation by around 50%** for each 10°C reduction in temperature



■ **Efficiency:** Warm Mix Asphalt can help to deliver time and cost savings on site, as it can be trafficked sooner, enabling the carriageway to be reopened faster. This means less disruption to road users and increased productivity for the workforce.

■ **Performance:** WMAs can also provide similar or improved mechanical performance to hot mix. The lower temperatures also mean less binder hardening at the start of the products' life.