

Asphalt advances in the headlines

Articles documenting developments in asphalt production, supply and performance continue to appear in Modern Asphalts twice a year. Each of the last 19 issues of the magazine can be viewed online at www.modernasphalts.com. Examples of key subjects covered in recent years follow below.

14



Issue 7 Winter 2000 - Glass gives road recycling more bottle

Crushed glass could soon feature in the construction and maintenance of many highways if the development and use of a new recycled asphalt mix continues to gather pace. Glasphalt is crushed recycled glass, conventional aggregate and bitumen binder which can be specified for use as base or binder course construction.

Use of Glasphalt in place of traditional macadam reduces primary aggregate consumption by up to 30%. This is good news not just for the environment but for

local authorities keen to put to good use stockpiles of glass whose supply outstrips recycling demand. The product gives authorities a better chance of meeting recycling targets and avoiding the cost of glass disposal at landfill.

The material was specified for use in construction of a new road in Stratford upon Avon in 2000 where around 2500t of Glasphalt was used, incorporating 600t of crushed glass.

Crushed glass is fed into an asphalt granulator to reduce it to 20mm pellets

before it is screened to remove paper labels, bottle tops and corks. Glass is mixed with aggregate at a plant in Essex, where it is screened into six sizes and mixed with bitumen.

Deputy Mayor of London, Nicky Gavron gave the product a huge boost by saying that Glasphalt could consume 1000t of recyclable glass every month in the capital alone. "I want London highway authorities and local authority cleansing officers to work together to make this venture a success," she said.



Issue 17 Autumn 2005 - Options added to Lafarge colours

Variety has become an essential component of Lafarge Aggregates' range of coloured asphalts. The firm's customers are looking for aesthetic appeal combined with demarcation so further options have been added to its Axopave asphalts.

There are now four varieties of coloured asphalt within the Axopave range and technological advances have enabled Lafarge to add materials with a gravel appearance or exposed aggregate finish.

"Green or red asphalt is often required for

surfacing and marking out bus lanes, cycleways and junctions to alert drivers to potential danger. But it is the aesthetic benefits, particularly appearances natural and sympathetic to local surroundings, that are becoming notably popular," says Lafarge's National Commercial Development Manager Jim Wilson.

All four of Lafarge's coloured asphalt products have been developed to provide more durable alternatives to resin based coloured overlays. Highway authorities and private sector clients need to add colour to

road surfaces that can also stand up to the rigour of heavy use.

Colour matching has become a central part of the coloured surfacing service Lafarge provides for customers. In Oxford, Lafarge has developed and laid a buff coloured 'Axostone' surface on Cornmarket Street, for Oxford City and County Councils. An appearance sympathetic with the Yorkshire flagstone paving of Cornmarket Street's footways was desired, with strength and durability to withstand use by heavy goods vehicles and emergency services.



Issue 18 Spring 2006 - Warming to hightech runway materials

Resurfacing of runway at Exeter airport using asphalt containing a polymer modified binder represents a promising departure from standard use for a premium material developed by Nynas Bitumen. The company's Nypol TS bitumen binder was designed for use in asphalt for highway applications but its recent first airport use at Exeter could open up a whole new market for the product.

Asphalt containing the Nypol TS binder remains workable for longer and demonstrates added durability once laid.

Both these factors are certainly an advantage when specifying asphalt on motorways or trunk roads but become absolutely crucial when working on airfields.

Surfacing materials that cool and become unworkable too soon could lead to costly delays for an airport operator with many airlines to satisfy, according to Nynas Bitumen's product application manager for performance asphalts Jukka Laitinen.

Nypol TS is designed to give good adhesion and cohesion with aggregate and the addition of cellulose fibres helps

improve the asphalt mix's durability. This allows the asphalt to better withstand aircraft loads. A fully laden Airbus A310 passenger aircraft can, for instance, weigh as much as 123t and exerts considerable forces onto an airport runway when the wheels of the plane touch down.

Runway resurfacing at Exeter was carried out during two weekend night time possessions and works had to finish by 4am each Sunday morning ahead of aircraft being allowed to use the runway two hours later.