

# Conducting business with care

**Specialism is on the increase and so is the number of specialist divisions of major companies. One such newcomer is Tarmac Johnston Material Services.**

Tarmac Johnston Material Services arose from the desire of Tarmac Quarry Products to consolidate its position as a market leader in the supply of thin and ultra thin surfacing products to a growing number of infrastructure customers, including highway maintenance organisations, local authorities and externalised local authorities.

Determined to maintain and enhance its service to customers, Tarmac acquired Johnston Surfacing in November 1998. "This brought a complimentary range of products and skills which could be developed under Tarmac's Masters in Infrastructure Maintenance brand," Tarmac

Johnston General Manager Steve Coombs says. TQP's existing range of maintenance and surfacing treatments such as the anti skid surfacing *Mastergrip* to Johnston's products and services provided a good fit.

"Adding the two operations together means we can provide a comprehensive range of specialist maintenance products and treatments nation-wide. We aim to be the first stop for surfacing maintenance needs, with a full range of cost effective solutions for all requirements; and a vehicle for accessing all TQP's special surfacing products," he says.

"If we don't have the entire solution to satisfy a customer needs within Tarmac Johnston then we can call on the rest of the Group to contribute their expertise. We are also able to support other Tarmac companies."

Keen interest is coming from Highway Authorities and Contractors for *Mastergrip*, a Type 1 high friction surfacing system with BBA HAPAS accreditation,



*A wide range of specialist surfacing is available from Tarmac Johnston.*

which can be provided in a variety of coloured and pigmented bauxite aggregates. The use of this types of material for high stress areas like junctions and roundabouts as well as for lane delineation and traffic calming continues to grow. Many aesthetic or architectural surfacing needs can also be accommodated using a wide range of natural and coloured aggregates.

## Cracking control

Other specialist products include the recently launched *Mastergrid*, a glass fibre reinforcement grid system targeted at control of reflective cracking which, untreated, can lead to premature pavement failure. This is a composite product incorporating a glass filament mesh; stitch bonded to a needle punched polypropylene paving fabric. It has proven highly successful in controlling cracking by either restricting formation of cracks or reducing the rate of crack propa-

*Laying Mastergrid to control reflective cracking through surfacing.*



gation in asphalt overlays.

Thin overlays are often specified as a maintenance solution for cracked carriageways, but Coombs says this on its own can be a 'quick fix' solution with cracks returning soon afterwards. *Mastergrid* can be used throughout the year, and its application to the cracked surface will act as a reinforcing and stress relieving layer, protecting the subsequent overlay, sealing the substrate from water as well as reinforcing the overlay with a high modulus glass fibre.

On a whole life costing comparison *Mastergrid* will easily outperform any 'quick fix'. The product comes in 100kN and 50kN strengths and can be used on jointed concrete carriageways, airfields, lean mix concrete roadways, cracked pavements, pavements suffering frost heave and pavements subject to very heavy sustained loadings.

For carriageways with severe cracking or "mobile" joints in concrete pavements, Tarmac Johnston can install a high strength coated steel mesh reinforcement product, secured and protected by a bitumen slurry seal prior to the traditional surfacing overlay.

For areas where high performance is not so critical; in residential streets for example, a veneer surfacing product called *Nimpactocote* continues to be popular. Coombs says: "*Nimpactocote* has been around a long time and is well tried and tested. It is a durable and dense low noise surface, which restores shape and ride quality where pavements have deteriorated. Alternatively, one of our micro surfacing products might be more suitable. Applied in single or double layers, polymer modified and fibre enhanced for improved durability, micro surfacing is a cost effective solution to extend the life and to improve

the appearance and skid resistance of residential and lightly trafficked carriageways".

Promoting techniques which are as environmentally friendly as possible is a key corporate goal of the Tarmac Group, and this extends to Tarmac's surfacing operations. Tarmac Johnston offers in situ pavement recycling as an alternative to traditional carriageway reconstruction and although Coombs says recycling has been slow to take off generally, "more customers are coming to see it as a cost effective waste disposal, reconstruction or surfacing solution".

Tarmac has the state of the art equipment essential for this sort of work as well as the skills and the track record which customers need to put their mind at ease. Coombs says: "The Tarmac Johnston recycling operation is supported by Australian based Stabilised Pavements International, one of the world's most experienced road recycling and soil stabilisation contractors".

The traditional approach to reconstructing failed carriageway is to take out and dispose of the old material and import new material. By using in situ materials, which are pulverised and treated with cement or foamed bitumen, recycling can be around 25% cheaper and take only half the time.

## Disturbance cut

"We have case studies where we have cut five week construction periods to one week, saving massively on landfill costs, the cost of new materials, and slashing the number of HGV movements which would have disturbed the community."

Coombs adds: "Landfill costs can be cut by 90% and HGV movements by 80% on some projects." Additional recycling capability is available by calling on



*Anti skid surfacing Mastergrid being applied at a high stress site.*

Tarmac's joint venture company Roadstone Recycling.

"Together we can provide a complete full depth recycling service for the reconstruction of heavily trafficked trunk roads, with Roadstone Recycling providing foam mix recycled asphalt for roadbase/base course, and us stabilising the sub grade and recycling its sub-base in situ."

A lot of interest is also being seen in fuel resistant slurry surfaces, which can be provided as a treatment to existing surfaces including lorry parks and airfields. Tarmac Johnston can provide fuel resistant slurry treatments which are permanently anti skid and can tolerate high temperatures, with a life of five years and more.

In addition, less fuel sensitive areas on roads, runways and airfield taxiways can be waterproofed, protected and revitalised by the application of Tarmac Johnston slurry seal.

For footways, Tarmac Johnston can provide a broad range of micro surfacing alternatives with varying textures and aesthetic appearances.

**Steve Coombs says: "With our broad range of products and services and our ability to access products and processes across Tarmac, we can provide a range of solutions for whatever surfacing maintenance need arises."**