

Nynas

East Yorks surface dressing sets new standards

A canny operation, premium binders, improved application and more thorough aftercare: they all add up to a success story for surface dressing.

East Riding of Yorkshire Council's Streetscene Services division evidently believes in the sound principles of old fashioned public service and listening to its own experienced technical staff. It carries out in-house many of the tasks for which the Council has responsibility, including highway maintenance; and is not averse to accepting the advice of managers who – in carrying out their duties – want to opt for other than the cheapest option.

Such is the case with surface dressing, a surfacing treatment which is reaping substantial benefits for East Riding. The council views surface dressing as a relatively eco benign and cost effective way of prolonging the life of its roads and has specified the process in maintenance programmes run over a number of years. More than this, it has sanctioned use of

higher cost premium products in the conviction that these will produce better results in the short term, and best value in the longer term.

"We're having good success with our surface dressing programmes," says the Operations Manager of Streetscene Services Peter Gladstone. "Surface dressing is used to restore resistance to skidding and to seal carriageways. The great benefit to this – really emphasised to us last winter – is that a well sealed pavement with no ingress of water does not develop potholes. None of our recently surface dressed roads suffered pothole damage in 2009/2010, despite the exceptionally cold weather.

"Added to this, by using premium products we've stopped early life failures of the kind that used to affect surface dressing. We've had no surface dressing failures at all

in the last couple of years. Much of this is down to the professional approach of our workforce under Network Surfacing Assistant Manager Peter Legood. His team does a remarkable job. But a lot has also to do with the bitumen binder that we've specified and the company which is applying it. It all adds up to a very effective package."

The binder chosen by Streetscene is Nynas Duramuls, produced by the bitumen specialist Nynas UK. "Nynas Duramuls is one of our most effective binders. It is a polymer modified road emulsion designed to meet the performance requirements for premium grade surface dressing binders as specified by the Highways Agency," says Nynas Special Products Sales Manager Steve Waller. "It has had HAPAS approval since 2005."

Nynas Duramuls is formulated to provide good reactivity, excellent binder adhesion, superior cohesion, flexibility and reduced temperature susceptibility. "The formulation results in good chip retention and long term durability," Steve Waller says. "This aids retention of texture which in turn improves road user safety and yields better maintenance cost efficiency."

As befits an operations manager working for a Yorkshire authority, Peter Gladstone is blunt about why a premium binder was picked for the job. "It was chosen to reduce the risk of anything going wrong and also to rationalise our surface dressing operations," he says. East Riding formerly employed premium binders on its principal routes with intermediate grades of binder being used on lesser roads.

East Riding of Yorkshire Council has eradicated pothole problems where roads have been surface dressed





Programmes of surface dressing making use of premium binders have been specified by East Riding's Streetscene Services

"Using the one grade of binder stops us going around our large county twice. Labour is a big cost: the increase in efficiency offsets the cost of the better binder," he says. East Ridings's policy of going for the best is actually part of a growing trend among authorities following the surface dressing path.

Nynas' contract is for two years, with a possible one year extension. (This year is the contract's first.) The bitumen specialist is actually contracted to 'supply and apply' and with Streetscene's approval, it subcontracted the apply side to specialist highways maintenance contractor Tarstone Surfacing.

Tarstone is applying up to 2.2 litres/m², in single or racked in dressings (see Box), depending on the status of the road. 'It's all to do with traffic levels,' explains Tarstone's managing director Rory O'Connor. "A residential road may be surface dressed in

6mm stone, a country lane 10mm stone while a high speed, high traffic density route may be of 10mm with 6mm racked in."

East Riding's rolling programme of surface dressing began this year in the middle of May and completed around mid August.

"None of our recently surface dressed roads suffered pothole damage in 2009/2010, despite the exceptionally cold weather." Peter Gladstone

Around 1.35M litres of binder were sprayed onto the county's carriageways, covering some 800,000m² of surface. The work provoked very few complaints from the public, due in part to busy roads being

worked on between 4am and 8am and then again in the evening, after 6pm. Streetscene's Operations Manager Peter Gladstone is warm in his praise for the flexibility and efficiency of Tarstone's spray bar operatives working alongside the council's team.

The positive comments are matched, in return, by the words of Rory O'Connor. Streetscene is responsible for the design of the surface dressing, works supervision, any pre-surfacing works such as patching, traffic management, the application of chippings and also undertaking each section of work's 'aftercare', that is, post dressing sweeping.

'Streetscene's aftercare is particularly good and perhaps the main reason why motorists' complaints have been stopped,' Mr O'Connor says. "They're in very quickly with their sweeping, to ensure that superfluous chippings are removed."

There is an art to it, apparently. Aftercare can begin as early as 12 hours after dressing has taken place, although sweeping has to be gentle. Altogether four sweeps are generally necessary to ensure a good job. "The local authority is very well motivated and effective with its surface dressing," Rory O'Connor adds.

GRADES OF DRESSING EXPLAINED

Surface dressing represents very good value as a primary maintenance method for ageing carriageway. Surface dressing is also comparatively eco-friendly. Various grades of dressing can be used: single dressing (binder plus single sized aggregate); racked in (binder

plus two layers of different sized aggregate, the smaller size 'filling in' gaps between the larger); and double dressing (binder and aggregate followed by binder and smaller sized aggregate). Double dressing is relatively expensive and tends to be used on high speed and high stress sites.

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