BENEFITS OF USING A MICRO-SURFACING TREATMENT ON ROADS

When roads reach a point where the surface is deteriorating and if left it may lead to safety issues and may incur greater expense to rectify in future we carry out sealing works to certain roads. These roads do not require reconstruction so the Council instruct Ringway Infrastructure Services to carry out Micro-surfacing work.

The benefits considerations to be gained from the application of a surface treatment compared with “traditional processes” of removing and replacing the existing road surface includes:

- Reduction in the generation of waste material
- Reduction in the production and use of natural resources
- Reduction in transportation and carbon footprint
- Reduction in energy use (electricity/gas)
- Economical to install, highly cost-effective to use.
- Reduction in maintenance costs
- Easy, quick application reduces disruption to residents
- The new surface is ready for use within an hour of application
- Effective use of highways budgets
- Prolongs the life of the existing road
- Enhances the appearance of the road by improving the surface texture, uniformity and colour

TECHNICAL DETAILS

As a versatile road surface treatment, Micro-surfacing provides a durable bituminous mixture that meets the needs of variable existing surface conditions and provides a textured surface, filling of cracks and voids, sealing weather-tight, and is durable for a number of years

The principal materials used to create Micro-surfacing materials are graded aggregate, asphalt emulsion, water and filler, including advanced polymers and other modern additives. These are mixed together according to a laboratory's design-mix formula.

Asphalt emulsions serve as a binder, holding the crushed aggregate together and bonding the new Micro-surfacing to the old surface over which it is being applied. A number of mixes of emulsions and aggregates are available to meet the various conditions, specifications, and requirements of individual projects.

The aggregate used is clean, crushed and graded. The asphalt emulsion is a three-part system consisting of asphalt, water, and emulsifier. Fillers such as Portland cement, hydrated lime, or aluminum sulfate liquid are often used in small quantities as stabilizers or chemical modifiers.

Micro-surfacing is made and applied to existing roads by a specialist surfacing machine, which carries all the components, mixes them on site, and spreads the mixture evenly onto the road surface.