



Proven Performance

POROUS DRIVEWAY FOR UPMARKET HOUSING DEVELOPMENT

The challenge

This new 63 house development in Shepshed, Leicestershire required porous, all-weather driveway surfacing for the new three, four and five bedroom homes that would manage rainwater and avoid local flooding. As the development was being built on a green-field site, there was no existing conventional drainage networks in place. The local authority planning department at Charnwood Borough Council specified that a sustainable drainage (SuDs) solution would be required on the driveways as planning rules require developments of ten dwellings or more to incorporate this into the design. The client was also keen to make sure that the new driveways would be durable and low maintenance for the future homeowners. After discussions with Tarmac's Technical Product Support Manager, ULTIPOROUS was specified.

Our solution

ULTIPOROUS is a fast-draining porous asphalt for use on driveways and small parking areas. It combines excellent drainage characteristics with proven long-term durability. It is supplied as a 6mm asphalt surface course for driveways or a 10mm surface course for small parking areas and is used with a specialist 20mm porous binder course and base aggregate designed for effective drainage. The chosen surfacing solution satisfied the Local Authority planning application, enabling the developer to avoid the cost and disruption of installing a new conventional drainage system. It also made the new development more sustainable as rainwater would return to the water table through substrata infiltration rather than through foul drainage which would then have to be reprocessed by the water authority.

Results and benefits

Population growth, urbanisation and climate change have been identified as being responsible for the significant increase in the risk and severity of flood events. ULTIPOROUS provides an effective solution to mitigate the increase in impermeable surfaces associated with new developments and urbanisation. With a guaranteed designed hydraulic conductivity rating that significantly exceeds even the most severe rainfall events; the permeable asphalt can be integrated into drainage schemes or be used as a complete system to help create a Sustainable Drainage System. It is the inherent infiltration, attenuation and pollutant retaining properties of the solution that enable it to contribute to sustainable water management and help mitigate the risk of flooding.