



FLEXIBLE POROUS PAVING SOLUTIONS

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What is nu-flex?



nu-flex is a surfacing material with a difference. It blends recycled rubber with aggregate and is bound together with a polyurethane binder.

It is dynamically different from traditional bound materials, and due to its highly flexible and durable nature, it offers some significant benefits. These benefits are useful in addressing the challenges faced in varying environmental situations.

Due to its design properties, nu-flex is an excellent solution in both urban and rural locations. It has been successfully used in a variety of settings including:



Highway network



Cycleways



Public footpaths



Bridleways



Canal towpaths



Cemetery footways



Country parks
and walkways



Golf courses



KEY BENEFITS



Resistant to rutting – with global warming seemingly causing an increase in flooding events, water related rutting is becoming more of an issue. Due to its elastic nature nu-flex is not prone to such rutting even during severe flooding. A business case can therefore be made for the use of the treatment on an invest-to-save basis.

Durability and grip- nu-flex has very good anti-slip properties and is excellent underfoot. It has been well received by equestrian groups, joggers and cyclists. Tests have shown that the material is extremely durable and resistant to wear and tear caused by continual usage.

Prevents defects and hazards - where traditional macadam may break and crack during subsidence, erosion or where tree roots are an issue, the elastic nature of nu-flex means the material will not crack or present trip hazards under the same circumstances.

Care for the environment – as an ISO 14001 accredited organisation, nu-phalt is keen to deploy procedures that are environmentally friendly. nu-flex sits comfortably in our suite of green solutions as its primary ingredient is recycled rubber crumb. Using this material, as opposed to a traditional macadam, can demonstrate a sizeable contribution to organisational carbon reduction targets.

Drainage and SUDS – nu-flex has excellent hygroscopic properties enabling water to migrate freely through its purpose-designed pores. This means the material can be used in areas where standing water or flooding is an issue. nu-flex can also be used to significant benefit by drainage engineers as part of a Sustainable Urban Drainage System (SUDS).

Low Maintenance – nu-flex is easily maintainable. Defective areas can be saw-cut and removed from site. The appropriate quantity for the repair is then simply mixed on site in accordance with our design recipe and used to complete the reinstatement.



Technical info



As a responsible organisation, nu-phalt have engaged with PTS International, our laboratory services provider, to undertake a number of tests on nu-flex in a lab-controlled environment, aiming to add performance related intelligence to the field knowledge we had already gathered. PTS are a UKAS accredited laboratory.

Specification- nu-flex is designed for a variety of situations and final applications.

nu-flex Base Course- designed to mimic traditional macadam materials.

nu-flex Wearing Course- has the ability to be produced in a variety of colours, porosities and thicknesses.



Slip resistance – our pendulum test results of 50 PVT show that the material has excellent slip resistance properties, comparable with type 2 roads.

Resistance to deformation – our wheel rutting tests compare favourably with those of a typical thin carriageway surfacing (typical mean = 1.1mm / nu-flex = 0.9mm).

Hydraulic properties – tests on this type of material demonstrated excellent hydraulic conductivity enabling water to flow through the voids easily and aid drainage.

Texture depth - our tests show a good texture depth of 2mm and demonstrate a minimal impact on texture depth post testing.

Load bearing - tests have shown a maximum loading value of 80 tonnes.

Project examples





FACTS

nu-phalt have laid over 10000m² of footway including nu-flex in the last 12 months.

High surface texture prevents slipping.

The product has a design life of 15 years.

You can patch repair any areas simply with a small kit.

The product is resistant to chemicals and animal waste.

Can be overlaid on concrete/tarmac/stone.

QUESTIONS & ANSWERS

Q - Can maintenance be carried out using in-house teams?

Ans. Yes in-house teams can be trained to undertake patching works on nu-flex

Q - Does the material present a fire hazard?

Ans. Tests have shown that it is difficult to set fire to the material. nu-flex will melt and smoulder rather than combust but quickly then dies out.

Q – Are nu-phalt able to undertake associated prep work?

Ans. nu-phalt are equipped to carry out part or all associated civils work at competitive rates.

Q – Does the open nature of the surface cause slipping issues in freezing winter conditions?

Ans. The porous nature allows moisture to pass quickly through and away from the surface thereby minimising the formation of surface ice.

Range of colours possible.

Installed by approved contractors.

Alternative to C.I tree grill units.

Highly aesthetic to delineate routes.

Can be overlaid on concrete/tarmac/stone.



Tree Root
Friendly



So why choose nu-phalt?

nu-phalt contracting sets itself aside from the rest as an energetic and innovative organisation that invests in and provides bespoke solutions to the civil engineering industry. We are a reputable, experienced and relatively large SME that works with high profile councils and tier 1 organisations. We are critical to the delivery of a number of prominent PFIs in which we are a trusted strategic partner. We recognise the social challenges that face our clients and engage with them to provide opportunities for local people where possible.

We are a quality driven organisation with a professional and progressive culture. We take our responsibilities seriously and have an in house HSEQ division which works hard to maintain our numerous accreditations including ISO 9001, 14001 and 18001 as well as SafeContractor initiatives.

National influence- Our executives play an influential industry roll at a national level with organisations such as RSTA and HAUC.

Multifaceted - we are one of few organisations that provide the conventional solutions alongside the truly innovative, able to deliver a range of 'cradle-to-grave' services including:

- Technical inspections and surveys
- Thermal repair solutions
- Spray-injection patching
- In-house leasing options
- Nu-flex solution
- Conventional civil engineering services
- Facilities management services

Our services and products are designed and presented in the best and most flexible way to meet the varying needs of our clients. Working closely in conjunction to find the best solution, be it a contracted service or an in-house facility. Our industry experience places us well to undertake value engineering exercises to help address engineering challenges whilst also driving down costs.



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