

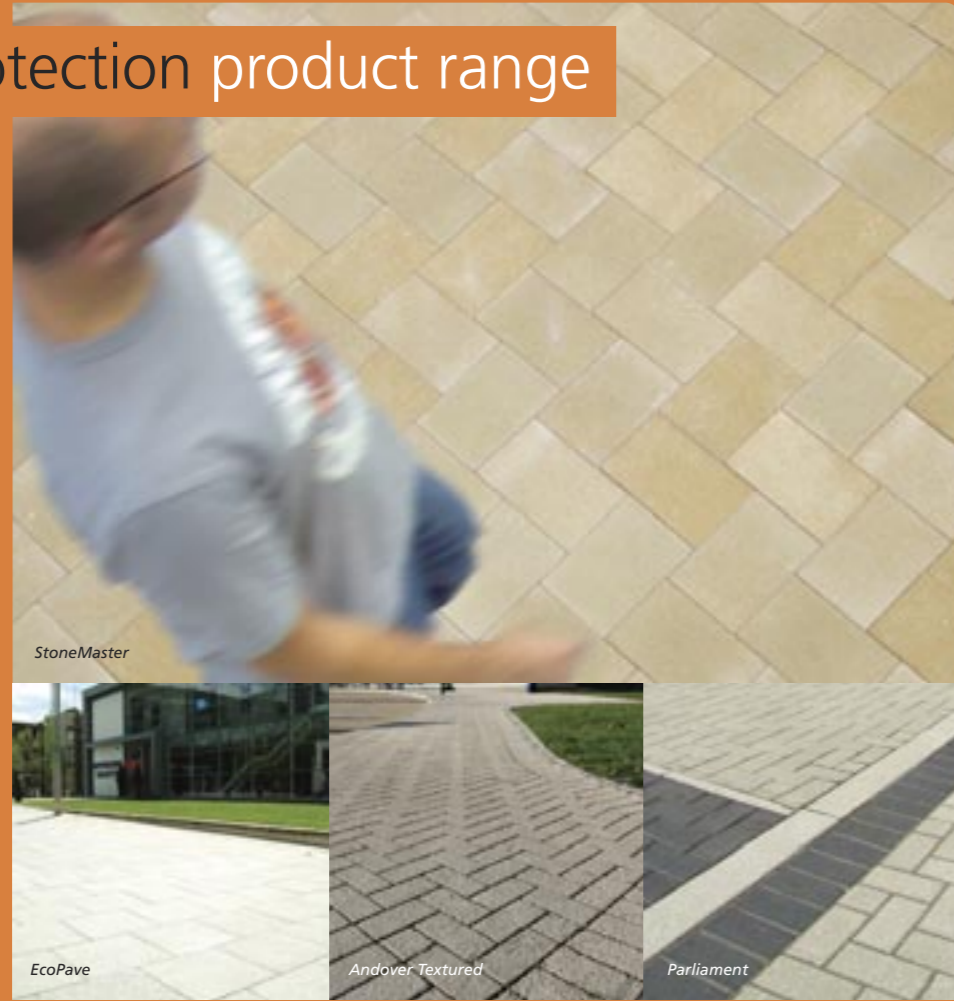
## Urban Surface Protection product range

Unlike most surface protection products, Charcon USP is pre-applied to many of Charcon's paving range, eliminating the need to pre-clean laid areas of paving in order to apply the surface protection.

### Sustainable Solutions

**StoneMaster** - simulates the aesthetic appearance of natural sandstone with up to 50% reclaimed/recycled content. The natural choice for any prestigious landscape.

**EcoPave** flag and block paving - The Eco range has been developed to maximise resource productivity - the optimum use of finite resources by minimising waste and by the inclusion of a high level of reclaimed/recycled materials.



### Block paving

**Andover Washed** - premium washed block for prestigious schemes.

**Andover Textured** - black and white Cornish aggregate provides this finely textured block with its stylish appeal and synergy with Charcon's flag paving and kerb ranges.

**Parliament** - complements the shades and textures of other paving types to create dynamic contrasts within paved areas.

### Flag paving

**Ultrapave** - steel or fibre reinforced, increasing product strength, with the added benefit that it is manufactured to replicate natural granite.

**Appalachian** - combines tradition with innovation by incorporating granite aggregates from the South West of England with other selected aggregates to give exceptional durability at an affordable price.

**Malvern** - premium quality flag incorporating innovative aggregate formulation. Colour, texture and size ranges complement existing landscapes or can create features in their own right.



Front cover image shows Pallament paving laid at the Technium Building in Swansea

## Urban Surface Protection



## Urban Surface Protection

A revolutionary new pre-treatment for paving to protect against surface contamination.

**Reducing costs of cleaning and maintenance.**



Charcon  
Hulland Ward  
Ashbourne  
Derbyshire  
DE6 3ET

t. 01335 372222  
f. 01335 370074  
e. charcon@aggregate.com

[www.charcon.com](http://www.charcon.com)



Printed on part-recycled paper

An AGGREGATE INDUSTRIES business



## Urban Surface Protection Overview

Appalachian

## Features and benefits

### Why use USP?

**Cost savings** – cleaning our city centres, including chewing gum removal<sup>1</sup>, can cost up to £23.40 per sq metre per year. Charcon paving with pre-applied USP reduces maintenance costs to just £4.20 per sq metre per year. With this in mind, based on a city centre the same size as Liverpool<sup>2</sup>, local authorities can save in the region of £576,000 per year<sup>3</sup> with Charcon.

1. 10p per piece, average of 15 pieces per square metre
2. 30,000 sq metres
3. Based on cutting down cleaning frequency from six to three



**Reduced cleaning frequencies** - surface soiling cannot penetrate the product, therefore is washed off during rainfall.

**Chewing gum** - initially binds to the surface so as not to transfer onto shoes and then into public buildings. As the chewing gum dries, it

will remove easily with the use of street sweepers or low-powered washers. Evidence has shown that two men clean 30 m<sup>2</sup> of chewing gum in four hours, however, with Charcon USP pre-applied, two men can clean 480 m<sup>2</sup> in this time.

**Reduced cleaning intensity** - the pressure and quantity of water required, regardless of water temperature, all result in cost savings. The reduced pressure also eliminates the removal of sand and mortar between block paving, resulting in less trip claims and the requirement to re-sand/mortar.

**Anti slip properties** - as the product is not simply a coating, but an impregnator, the topography of the surface remains unchanged.

**Ice conditions** - the effect of water freezing on the surface, due to the beading effect, actually assists in providing grip. The application of salt does not affect the product.

**No waste** – by pre-applying USP to Charcon paving within the manufacturing process, any surplus liquid is collected and re-used, resulting in no wastage.

*Evidence has shown that two men clean 30 m<sup>2</sup> of chewing gum in four hours, however, with Charcon USP pre-applied, two men can clean 480 m<sup>2</sup> in this time.*



EcoPave

One of the biggest problems experienced by specifiers of high quality landscaping materials is to maintain the original appearance over a long period of time. This problem is particularly prevalent in areas subject to heavy pedestrian traffic and is the result of a number of factors.

### Urban Surface Protection provides many solutions

Unlike other surface protectors, USP is pre-applied to the paving before it is delivered and laid. Whilst an element of cleansing may still be required during the life of the paving, the frequency and severity will be significantly reduced. USP will substantially lower maintenance costs.

The sealant gives self cleansing properties, meaning that heavy rainfall can wash away most deposits. Chewing gum will not adhere over a long period so paving will only have small build ups rather than increasing growth.



Malvern



StoneMaster

## Problems and solutions



**Problem** - Day to day, surface contamination presents an ongoing problem to local authorities who face huge cleaning and maintenance costs. Staining is an increasing issue with such problems as fast food litter, up 17% in the last four years. Other contaminants such as bird droppings, moss and chewing gum, which cost the UK in the region of £150 million per annum to remove, are difficult and expensive to treat.

### Solution

Charcon Urban Surface Protection (USP) is pre-applied to the paving, preventing the adhesion of contaminants such as chewing gum, bird droppings and moss, as well as eliminating staining.

### How it works

Charcon USP is a chemically inert, environmentally friendly water based fluoro polymer. Its mode of action when applied, distributes and binds fluorine molecules to the topography of the treated surface. The fluorine molecules through their chemical composition, give the treated surface non-stick properties.

### Technical Data

**Chemical composition**  
Aqueous fluorochemical dispersion

**Density**  
1.0kg/lt @ 25°C

**Chemical resistance**  
Dilute acids and alkalis, water and de-icing salts