Sandstone Discolouration & Effective Remedies

Cumbrian Stone
Natural Stone Specialists

Discolouration in Natural Sandstone Units

Sandstone is a natural product, and as such, the material composition of the stone can vary from quarried block to block depending on several factors within the quarry. These include location of the block within the quarry site, the depth the block has been excavated from and the changes to the local environment that may have taken place as the block was formed. This gives us the natural colour variations and features we have come to expect from high quality British sandstone, and these variations can be managed through the selection and screening of block to identify any faults or undesirable features within the stone.

A typical quarry site and a screened quarry block being cut on a primary saw.

Due to the way in which sandstone is formed it is possible for different seams of materials to run through the stone. One example of this is orange banding within some sandstones that may be caused by the presence of iron oxide (this is very common in our Longridge sandstone but can also feature in other stones depending on the variations within the block).

Some of the natural features found within British Sandstone.
(Left Hand Photo – Longridge Sandstone; Right Hand Photo – Corsehill Sandstone)

While these minerals often give desirable features within the stones, too high a concentration of certain materials within sandstone can cause issues that need to be addressed; one of the most common issues faced by the natural stone industry as a whole is the discolouration of sandstone. At Cumbrian Stone we have found that if any discolouration does occur, it is normally isolated to a small number of stones across a project and normally involves the stone darkening quicker than would normally be expected. This can happen across **all** British sandstones, and is caused by a higher than normal concentration of manganese within the stone which oxidises after the stone has been

built. Unfortunately there is no way to detect this at the time of inspecting or cutting the sandstone block, and despite what assurances may be given it is impossible to offer a genuine guarantee against this.

An untreated Buff Sandstone pillar cap that has darkened due to high levels of Manganese within the stone

Fortunately, at Cumbrian Stone we have developed a successful treatment that removes any discolouration from the face of the sandstone as well as preventing reoccurrence in the future. This involves a simple application of a chemical compound to the face of any discoloured stones which draws the manganese oxide to the surface and neutralises it, restoring the original appearance of the stone. This process has been successfully tested by our team on several projects across the UK allowing Cumbrian Stone to ensure that our customers are left with the finished appearance they desire.

A Longridge Sandstone pillar cap following treatment where discolouration has occurred. (This is the same pillar cap as the discoloured pillar cap above).

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How Does Cumbrian Stone Treat and Remedy Discolouration within Sandstone?

At Cumbrian Stone we use a tried and tested compound to neutralise the Manganese Oxide; this both removes the discolouration and prevents it returning in the future, leaving the building façade looking as good as any new building should be expected to. A copy of the technical data for the compound that we use is below:

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Product name Janitol Altrans
Product No. ALT60W, ALT764

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses Acidic Cleaner

1.3. Details of the supplier of the safety data sheet
Supplier DEB
Denby Hall Way
Denby
Derbyshire
DE5 8JZ
Main Tel. 01773 855100
Technical Tel 01773 855105
reach@deb.co.uk

1.4. Emergency telephone number
National Poisons Information Service 0844 8920111

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Classification (1999/45/EEC) C;R34.

2.2. Label elements
Contains PHOSPHORIC ACID 29.58%
Detergent Labelling
< 5% non-ionic surfactants
Labelling

Corrosive

2.3. Other hazards
None.

A full copy of the Safety Data Sheet for this product is available on request.

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The Assurances Provided by Cumbrian Stone

At Cumbrian Stone we take great pride in each and every project we undertake. We fully appreciate and understand that our customers expect their stone to look great and do not want discoloured stone units to spoil the appearance of their building. This is why Cumbrian Stone have addressed this issue through a process of in depth testing and product trials to ensure that on the unlikely occasion of discolouration occurring we are fully equipped to assist in the rectification of any discolouration with the minimum possible intrusion and impact to your project.

Our team always work closely with your installation contractor to ensure that any issues are picked up and dealt with as quickly as possible to ensure that only the best results are delivered when you choose Cumbrian Stone.

Further Information

For further information on our range of natural stones and the products and services we offer, or for advice on sandstone discolouration and how to treat it please contact Cumbrian Stone using the following details:

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