

ALGAE, LICHEN AND MOULD GROWTHS

Algae, lichens and mosses are commonly found growing on external surfaces of buildings, particularly where design features or maintenance faults result in frequent wetting of the surface. Sometimes their appearance in moderation may be regarded as desirable, even to be encouraged, but they can cause deterioration of some substrates.



All these organisms need a fairly high level of moisture for active growth, but once established they can exist under a high range of moisture conditions and many can withstand drying out.

In the UK, conditions are generally more favourable on wetter, Northern aspects, though Lichens often flourish on South-facing surfaces. Lichens and mosses are commonly seen in rural districts although, since the improvements in air quality following the Clean Air Act, there has been a gradual increase of the lichen population in urban areas.

Growths of Lichens may serve to trap water that may cause damage as a consequence of freeze-thaw cycles.

Algae will grow on virtually any substrate, including ironwork, if moisture levels are adequate and there is sufficient illumination; this need be only very slight.

Though commonly green, algae can cause unsightly red, brown or black stains. They are most predominant on surfaces which are frequently wetted and remain damp for some time afterwards. Surfaces exposed to driving rain, or with design features which result in poor shedding, are particularly at risk.

On external surfaces, specific organisms often cause disfigurement and deterioration but are unlikely to cause major structural damage. Localised algal growths may indicate leaking rainwater pipes or gutters.

Surface biocides can prevent or destroy surface growths. They often take a few days to become effective. Preferably they should be applied during a dry spell because in wet weather they may be washed out before they have time to act. Their action is hastened if thick surface growths are partly removed or torn with a stiff brush and the wash is well brushed in. After prolonged drying, some growths, particularly lichens, may be very difficult to wet and so will not absorb sufficient surface biocide. It may be better to lightly moisten the growths with water shortly before applying the wash; this allows re-hydration of the tissues and assists uptake of the biocide.

Common Growths on exterior building materials:

Organism	Appearance	Remarks
Algae	Green, red or brown areas consisting of powdery deposits or filaments which may be slimy under wet conditions.	Found on all types of substrates.
Lichens	May consist of leathery incrustations on the surface or may be embedded in the substrate. Usually orange, green, grey or black.	Found on all types of substrates
Mosses	Typically consists of green cushion of spiky tufts but may also be low or spreading Usually brown when dry.	Usually found on surfaces where salts, soil and dirt have accumulated.
Liverworts	Typically leafy, close-growing, green-coloured plants but some occur as leathery tissues and may resemble lichens.	Usually found on surfaces where soil and dirt have accumulated.
Moulds	Moulds appear as spots or patches that may spread to form a furry layer on the surface: grey, green, brown or black. They may also grow within a paint causing a stain, usually pink or purple, but the mould itself may not be visible.	Found on painted surfaces and on surfaces where dirt and dust accumulates. Also occur on and under wood stains, glazing, putty, building sealant and plastics.

SURFACE BIOCIDES

Active chemicals used in surface biocides are subject to scrutiny for safety in use under the Control of Pesticides regulations and only products with a Health and Safety Executive (HSE) number should be used. Information on the regulations and clearance procedures is available from HSE. It is an offence to use any such pesticidal products without approval under the Control of Pesticides Regulations.

When removing surface growths and preparing surfaces, suitable respiratory protection must be used to guard against the inhalation of mould spores or dust particles; these can cause reactions in some individuals prone to asthmatic or allergic conditions.

All users of surface biocides should follow makers' instructions regarding the use of protective clothing (e.g. goggles, gloves, overalls) and professional operators will need to take into account procedures required under the Control of Substances Hazardous to Health Regulations (COSHH).

Although it is undesirable to introduce soluble salts, particularly sodium salts, into porous building materials, there is no evidence that any of these washes will harm building materials in the concentrations normally specified. Some caution is needed however because of the possibility of staining due to reactions with iron compounds in some substrates. Advice should be sought from the supplier.

For further information or advice regarding this topic please contact Ibstock's Design & Technical Helpline on 0844 800 4576.