# Common exterior problems



### What is blistering?

'Blistering' is the formation of bubbles in the exterior decorative paint film, resulting from localised loss of adhesion and subsequent lifting of the existing paint film from the underlying surface. It may be that one paint layer has lost adhesion to the one beneath or it may be that all the paint layers collectively have lost adhesion to the underlying substrate. The loss of adhesion and blistering can quickly lead to paint flaking and peeling.

#### Two main types of blistering

- 1. Those caused by moisture entrapment within the substrate beneath the paint film, which converts from a liquid into a vapour when the surface is heated by the sun and expands but cannot escape (evaporate) through the paint film.
- 2. Those caused by solvent entrapment beneath the paint film during application, where the solvent cannot escape when the surface is heated up, due to re-coating before the recommended time between coats.

If you have any concerns with the appearance of your roof, please contact a professional roofing applicator.

For more information, please visit:





Acratex Customer Service **13 23 77** 



### What is chalking and fading?

'Chalking' is defined in AS/NZS 2310:2002 'Glossary of paint and painting terms' as 'the appearance of a loosely adherent fine powder on the surface of a paint film, arising from the degradation of one or more of its constituents'.

If the coating itself is breaking down due to ultra violet (UV) degradation, there will be some evidence of a white or coloured powdery 'chalking' residue on the wipe-cloth. Some chalking is to be expected as all paints will be affected by UV radiation to some degree, over time.

The rate of this degradation will vary depending on the topcoat colour, environmental conditions and the type of paint used (ie. the particular resin system used in a given paint product).

### Why does it occur?

Chalking occurs due to ultra violet (UV) radiation from sunlight interacting with the constituents within the paint film. Over time UV degradation of the binder or resin within the paint film will allow the exposed pigment particles to become more loosely bound to the surface resulting in a powdery surface.

Colour change is a natural process that happens slowly over time and some fading is expected with weathering.

Regular washing of a roof surface will help to remove chalkiness and other materials that can deposit on a roof and cause it to fade.

#### **Solution**

Unfortunately, degradation due to the 'chalking' is irreversible once it begins to occur and can often become quite irregular or patchy in appearance.

To eliminate the effect completely, the entire surface will need to be pressure washed with cleaning agent to remove all surface contaminants and chalking prior to repainting with an approved UV resistant coating system.



Congratulations on coating your roof with Dulux® Acratex® Roof Membrane. We would like to offer a few tips on caring for your roof to help extend its life and assist in maintaining its optimal appearance.

## How to maintain optimal appearance



#### Regular cleaning

It is recommended to have your roof washed at least every 12 months depending on your surrounding environment. Coastal areas tend to have more build-up of salt contamination, and so it is recommended to wash more frequently in those areas. Regular washing of your roof helps to remove environmental fallout such as, salt residue, dirt, dust, chalkiness, mould, algae, and lichen that can deposit on a roof causing aesthetic changes.

Regular cleaning and maintenance will help to preserve your Dulux Acratex Roof Membrane and keep your roof looking great for longer.



#### **Regular inspections**

Checking for cracked tiles, joints, flashings, loose or missing pointing, and sealant should be a part of the regular maintenance to ensure no deterioration is evident to allow water ingress. Pay close attention to areas which are cold and dark such as heavy overhanging foliage which are prone to mould and algae growth and may cause your roof membrane coating to deteriorate quickly if not regularly cleaned.

If your roof has deteriorated or damaged tiles and substrate, it's important to get them replaced as soon as possible by your local licensed roofer.



### **Recommended cleaning directions**

The roof membrane system can be cleaned with a low-pressure water blast (less than 1000 psi) using a fan-jet of cold water at a 45 degree angle from the surface (not perpendicular). Work from the top of the roof down to avoid water entering the roof cavity - best practice is to use a professional roofing cleaner or applicator.

Specialised roof cleaning products can be used during the cleaning process to assist in removing stubborn stains or contaminants. The fan of the water blaster should be kept a minimum of 30cm from the surface of the roof to avoid damage.

Alternatively, we recommend regular low pressure cleaning with a soft broom and a low foaming, biodegradable, general purpose cleaning agent. Under no circumstances should heavy staining be removed using a high-pressure water blaster or harsh chemicals.

Note: Some chemicals used to treat mould, such as bleach (dilute hypochlorite solutions) or sugar soap, may damage a membrane film. Be sure to disconnect any downpipes to rainwater tanks before you commence cleaning and rinse the roof thoroughly with potable water before reconnecting. You can obtain further advice about chemical and non-chemical treatments for cleaning roofs from your professional roofing applicator.



Safety First! Working at heights is dangerous. Take safety precautions to keep yourself safe. Know your limits and use appropriate safety equipment!



Does your roof appear faded or dull? Environmental fallout such as salt residue, dirt or dust deposits can cause this aesthetic change



Cleaning your roof helps remove mental fallout



Keeping your roof looking great for longer

# Colour durability



Dulux® Acratex® Roof Membrane has been formulated to withstand the harshest conditions under the Australian sun - and roofs really do provide the most extreme exposure conditions for coatings and pigments.

The Dulux Acratex manufacturing facilities, located in Adelaide, have achieved ISO 9001 and 14001 Quality and Environmental Management certification and the Roof Membrane products have been developed for the hash Australian exterior environment, in a modern ISO 17025 (NATA) accredited laboratory.

Colour change is a natural process that happens slowly over time and some fading is expected with weathering. Chalking, or the breakdown of the acrylic binder under harsh sunlight to expose some of the coating pigments on the surface, is one reason why roof membranes can fade or lose their colour intensity over time. Regular washing of a roof surface will help to remove chalkiness and other materials that can deposit on a roof and cause it to fade.







# How to prevent algae, mould and lichen growth

As with all maintenance, prevention is better than cure. Regular washing of a roof surface will help to remove materials that adhere to the roof and promote algae, mould and lichen growth.

Choosing a pastel or darker colour may also help raise the temperature of the roof to promote faster drying, which discourages mould and algae growth, and helps hide any minor discoloration. Listed below are a few additional suggestions that may help maintain your roof membrane and help reduce algae and mould growth:

- 1. Allow more sunlight hours to reach the roof by trimming back shady trees and surrounding foliage.
- 2. Avoid blowing leaf litter to minimise levels of dust and organic matter in the air.
- 3. Remove near-by nesting or roosting sites for possums, bats and birds (subject to council approval).
- 4. Ensure that gutters are kept clean and the roof drains quickly following rain.
- 5. Discourage mould growth with early intervention and consider using a specialised roofing agent for its removal.

We recommend using Dulux Acratex PrepTreat after the contaminants have been removed.



#### Algae

Are typically brown to greenish primitive organisms that can form a thin slimy layer on surfaces. They can grow on roofs when the local environment is moist, slow drving. shaded, nutrient rich, low sloped, slow draining or unevenly ventilated.



#### Mould

Is typically a coating or discoloration caused by various fungi that develop in a damp atmosphere on various types of nutrient rich surfaces.



#### Lichen

Is a composite organism consisting of a fungus and a photosynthetic partner growing together in a symbiotic relationship.





Algae, mould and lichen growth on roof surfaces is largely due to environmental factors, colour choice and the accumulation of dirt and pollution over time. A regular maintenance program to remove deposits that encourage these growths will help keep your roof looking great for longer.