



Physical Properties and what to consider

Part 4: Durability and performance of Roof Tiles

Roof tiles have been around since before the time of antiquity and for good reason, they were born to last. Modern innovations into the industry have only served to enhance the quality of roof tiles, allowing them to offer greater lifespans than ever.

By investing in durable roof tiles, your home will be shielded against the worst the elements have to offer including fire, winds and storm weather. Strong roof tiles are the perfect guards for your family and your investment.

DID YOU KNOW?

Roof tiles are capable of lasting 50+ years and can still be repurposed at the end of their lifespans. Some tiled roofs have been known to survive for as many as 100+ years.



How are RoofTiles so Durable?

Mother Nature provides only the most high quality ingredients for Australian roof tiles. Clay, cement, sand and water are strong, natural and environmentally friendly and it is the traits inherent in these products that roof tiles owe their amazing durability.



FACT: Concrete roof tiles actually become stronger and less porous as they age; this is due to a positive reaction between the water and cement during manufacture.



Why Durable RoofTiles Affect Everyone

The roof is one of a home's most important features, so it stands to reason that you may wish it to tick the following boxes.

- Will provide excellent shelter for your family
- Is low maintenance
- Will last
- Environmentally friendly

Roof tiles tick all these boxes and more. Because of the high standards of quality roof tiles achieve, they require little to no maintenance after installation making them an impeccable once only investment.



Why Durable Roof Tiles are environmentally friendly

From first harvest, through manufacture to final installation, roof tiles cause zero harm to the environment. This is on account of the resources necessary for their creation come from renewable, naturally occurring sites prevalent across Australia. No chemicals or coatings are employed at any stage of the process allowing roof tiles to retain their earthbound connection.

Because roof tiles are guaranteed to be 100% non-toxic, they are perfectly safe to be used for rainwater harvesting.

According to a study conducted by the WA institute of technology, concrete tiles are the most suitable form of roofing for houses in close proximity to the sea coast. This is due to the corrosive atmosphere in these regions in regards to salt attack.



MYTH BUSTING:

The increase in strength concrete tiles undergo over time causes excess strain on the roof frame.

FALSE: *While the weight of concrete tiles does increase, the degree of increase is so incredibly small that there is no danger of a roof collapse. Furthermore, roof frames for roof tiles are reinforced during installation to account for such a possibility and negate its occurrence.*

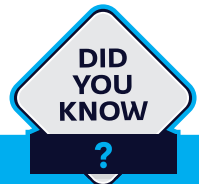


What is salt attack?

Salt attack occurs when the salt crystals left behind by salt water adhere to the pores of a masonic surface.

Over a long period of time, these crystals increase in volume causing the pores to expand which results in significant wear and tear.

Because roof tiles are naturally resistant to salt attacks, they are viable options for all properties in close proximity to the sea.



Though common, finding moss and lichen growing on your roof tiles does not cause structural roof damage. They can be easily removed with a low pressure hose or eco-friendly chemical solution that can be bought from your local hardware store.



RoofTile Options

Roof tiles are prized for their wide range of design and colouring options, allowing for unique and innovative design potentials. The distinct shapes allow for optimisation for classic and contemporary architectural options.



Superior Warranties

Roof tile manufacturers stand by the superior durability of their products offering warranties that last 50 or even 100 years. It is important however to check the fine print of these agreements as some of them may only cover product defects as opposed to external causes such as storms and fire etc.



What to ask your builder checklist

Different roof types come with different features and benefits, while research is always good, hearing the details straight from your builder can help you consolidate your decision.

- **How long will my roof tiles last?** Industry standards for roof tiles promise a 50 year minimum.
- **Will you recycle my old roofing material?** If conducting a replacement, don't just assume the contractors will simply take the old tiles. Be sure to enquire into their recycling policy, you may need to hire a skip bin. You can also consider keeping the tiles for repurposing in DIY home projects.
- **How are your tiles made?** It is important to ensure your contractors obtain their tiles through natural, eco-friendly practices to ensure no harm is inflicted to the environment.
- **I have a water tank, is it safe to collect water from my tiles?** Roof tiles are naturally non-toxic but if they have been coated or painted (an uncommon practice) then they can stand to contaminate harvested rainwater.
- **I live by the sea, will my tiles resist salt attack?** Roof tiles should be capable of resisting salt attacks very effectively.

- **How long will the colour of my roof tiles last?** Terracotta roof tiles are immune to permanent discoloration and concrete roof tiles can keep their colour for decades.
- **What are the maintenance requirements?** Roof tiles are expected to last their entire lifespans with little to no maintenance at all. However if you live in a region prone to high winds or bushfires then it is worthwhile discussing your options in order to maintain the strength of your investment.



Cleaning your roof tiles

While general maintenance is best left in the hands of a professional, the best way you can maintain the health of your roof is by keeping it clean. While moss and algae that form on your roof do not cause structural harm, they can mar the beauty of your home which can lower its appeal and value.

To clean your roof, consider the following steps.

1. Purchase a high pressure cleaner, an environmentally friendly moss and algae killer and safety goggles. These can be purchased from a local hardware store. Enquire with a store person for the best solution for you.
2. Before stepping onto the roof, make sure:
 - Have a buddy in the vicinity to assist and pass up equipment from the ground. Having a buddy will also ensure the swiftest emergency responses possible.
 - Are wearing good shoes with a sturdy grip.
 - Are wearing your safety goggles.
 - The roof is not wet from rainfall.
 - The water tank is disconnected if you have one. Otherwise chemicals from the solution can feed into the gutters and on to the tank.
 - Consider the roofs pitch, if it is too steep then leave cleaning to a professional.
 - Strongly consider if you are up to this, working at heights can be disorienting. Don't take the risk unless you are absolutely certain.
3. When walking on the roof, make sure you step only on the spots where the tiles overlap as these are the strongest points of roof tiles.

4. When spraying the solution, be sure to walk backwards slowly and steadily. This is because the sprayed tiles will be wet and slippery.

Having clean tiles not only maintains the natural beauty of your roof, it also enhances its natural longevity and durability.



Quality Assurance

To guarantee the superior quality of their products, all batches of manufactured Australian roof tiles undergo a quality assessment to ensure maximum satisfaction.

Roof tiles are assessed in controlled conditions to examine their natural resistances to fire, wind, water and other elements.

Unless these tests are passed, roof tiles are not put up for public distribution. As a result, any and all roof tiles fitted to your roof are guaranteed to perform effectively during the toughest conditions.



How your location affects roof tiles natural durability

From the desert outback, to the tropical coast of Queensland. Australia is home to a wide variety of different climates and environments, all of which can play a role in the performance of your roof tiles.

While roofing tiles are built to resist cyclones, bushfires and general weathering, such events are not healthy for your roof regardless of type. As a result it is very important you take your environment into consideration as you may need to take extra steps to ensure survivability. It is vitally important that you retain the details of your contractor so that general maintenance and checks can be performed if or when needed.



Quick Terminology Guide

Batten: A piece of timber that is installed above the rafters, it allows for the effective placement of roof tiles.

Bedding: Mortar that secures the ridge caps to the roof.

Coating: A fluid applied to a roof that allows colour to last longer.

Eaves: The overhanging lower edge of a roof.

Flexible Pointing: The seals that lock in the ridge capping tiles.

Gable: An area of the roof where it ends vertically.

Gutter: A catchment at a roofs edge that collects water during rainfall which is then fed into the water tank.

Hip: A point on the roof where two inclined roof slopes join at an external angle.

Ridge Capping: Tiles fitted to the joins where two slopes of the roof meet.

Valley: A point on the roof where two inclined roof slopes meet at an internal angle.

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