



***COLORCOTE***<sup>®</sup>

PRE-PAINTED METAL PRODUCTS

***COLORCOTE***<sup>®</sup>

**RE-ROOFING**

**GUIDE**





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# Introduction

A new roof is one of the simplest ways to enhance the value of your existing property.

Your roof and cladding are two of the largest and most obvious visual features of your home.

The cost of re-roofing your home with ColorCote® pre-painted metal roofing systems is usually a lot less than a new European-designer kitchen or en-suite bathroom. A new roof will lift the value of your property and will not only look great but will also provide decades of protection for your biggest and most valuable asset.

And remember, you don't have to leave the decision to get a new roof until your existing one's failed or begins leaking. That can be a lot more expensive and can cause structural damage to the roof structure and other parts

of your home and create health issues for your family.

When you're renovating and/or re-roofing there are a number of important questions you need to ask to get the right roof for your home. You want products that will give you the look and protection you are after and will stay looking good for years and years.

The ColorCote® Re-Roofing Guide gives you the knowledge and understanding you need to have informed discussions on pre-painted metal roofing with architects, designers, builders and other trades people.



## This knowledge will help you:

- Get the fundamentals right and avoid potential pitfalls,
- Increase the lifespan of your new roof,
- Save thousands of dollars in future repair, maintenance and replacement costs.

When you come to re-roof mistakes can be expensive – not just in financial terms but in worry, stress and manual labour.

Decisions need to be made on a product's suitability for the house design, its suitability

for its geographic or climatic environment, its lifespan and maintenance requirements - not just the initial up front cost. Spending a little bit more now and getting it right can save you thousands of dollars and lots of extra work over the life of your roof. (It is important to remember too that the cost of your roof is only about 5% of the total cost of your home).



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# Why re-roof your home?

## 1) You want a change

- You're redesigning your home and perhaps adding a new room or extension to your home.
- Looking to change the design or look of your home? Changing the pitch of the roof or you want to add some colour to match the rest of the house?
- Maybe you want to replace a heavy-weight concrete tile roof with the sleek lines of a long-run ColorCote® pre-painted metal roof?
- Perhaps you're looking to fix old renovations or modifications or design errors that are not in keeping with the architectural style of the home or the neighbourhood?

## 2) The roof has failed

It's lost its colour and is all corroded and rusty. It's even started leaking too!

The first question you need to ask is: "Why has it failed?"

### *a) Old age.*

All roofs wear out over time. So if your roof has kept the weather out for decades and now looks past its best or it's starting to leak, you can be fairly confident that if you re-roof using the right materials and get a good tradesman to install them, then you can rest easy for many years to come.

Concrete tiles can get water-logged and crack or lose their cement joints.

Bitumen-coated metal tiles are also prone to corrosion and can lose their stone-chip surface which has a tendency to block gutters and downpipes.



But if it has failed prematurely; then why?

### *b) The roof system is not fit for purpose.*

Using the wrong roofing product for the environment is the most common cause of premature roof failure.

If you have a pre-painted metal roof and it is not able to resist the elements; for example if you live by the sea and have a steel roof and the severe marine environment is corroding the roof or causing the paint to peel after just a few years, then it obviously should never have been installed in the first place and should be replaced with a pre-painted aluminium roof.

### *c) Poor maintenance.*

All roofs have to be washed and cleaned on a regular basis. Failure to do so, particularly in severe marine or other harsh environments, or when contaminants build up, can shorten the life of any roof. Unwashed areas are particularly vulnerable.

### *d) Structural reasons.*

The roof structure supporting the roof has failed or collapsed either through poor design, poor installation, or



material failure allowing leaks or damage to occur to the roofing material. Incorrectly installing fixtures such as solar heaters, brass or copper pipes, and television aerials can also cause accelerated corrosion.

#### *e) Design.*

Poor roof designs can create overhangs and unwashed areas which allow corrosive elements to build up. Some roofs are designed with insufficient pitch to allow water to flow away which can cause ponding.

Other designs don't take into consideration the aspect of the building and how it is sited in regard to prevailing winds or other local weather patterns. This can mean water and salts are forced up under the spouting or eaves and cause further corrosion.

Architectural features, such as parapets, that can prevent water from escaping, can also cause roofing and structural failure, and leaky home syndrome.

## The True Cost

You've decided to re-roof. Carefully consider the following and you will save yourself on-going problems and a lot of wasted time and money in the long term.

### Cost

When you're re-roofing it's very important you take a long-term view in regard to the cost. Costs can be broken down into up-front (material and installation) cost and lifecycle cost. Cheap up-front costs aren't necessarily going to save you money in the long term.

The cheapest material may not be made in New Zealand for New Zealand conditions. All New Zealand councils and local authorities have a minimum 15 year durability standard for roofing materials as required by New Zealand Building Code, clauses B2 and E2 which cover durability and weather tightness.

Installing a roof using cheap materials and/or less than reputable tradesmen may mean you'll have to replace the roof in only a few years, possibly at your cost, because it didn't meet regulations in the first place and the installers are no longer in business.

Remember, everything you hold dear lives under, and is protected by your roof.

ColorCote® pre-painted steel and aluminium roofing systems have been manufactured and proven under New Zealand climatic conditions for more than 30 years.

ColorCote® is manufactured by Pacific Coilcoaters, a subsidiary of Fletcher Building, New Zealand's largest manufacturer and supplier of building materials.





## Re-Roofing: How to go about it?

The re-roofing process begins by asking lots of questions such as:

- What sort of pre-painted roofing system do you want or need? Your decision can be affected by the weather; which way the house faces; what sort of neighbourhood you live in; and the architectural style of the house.
- What sort of climatic conditions will the roof be exposed to? Are you by the sea, in a rural area or in the city? Will you need a steel or aluminium substrate?
- Which way's north and which way does the prevailing wind come from?
- What sort of profile should your roof have?
- What colour can or should you choose?
- Do you need a permit or building consent? Some local authorities require a consent for a re-roof, others do not. Check with your architect, builder/roofer or your local council.

Contact ColorCote® and we'll be able to tell you which coating and substrate solution is best for your design.

Just complete the on-line inquiry form at [www.colorcote.co.nz](http://www.colorcote.co.nz) for free, no-obligation advice.

And if you decide to go ahead, ColorCote® will stand behind its recommendation. All ColorCote® roofing and cladding products come with a written warranty. Each warranty is specific to a particular building, where it is sited, and the type of roofing or cladding product used. ColorCote® makes sure you use the right product for the job and its environment, so only normal maintenance – usually a wash every six months – is required.

Then your most important decision is to choose a reputable or approved roofing company.

Ask your friends for recommendations or check the contacts on the inside back cover of this guide. A good roofing company is also an invaluable source of information. They will have the experience and local knowledge to help you get the roof you want.

## Additions & Alterations

If you're planning to change the look of your house as part of a wider alteration or addition you might need to talk things over first with an architect or other building design professional.

It's not just the roof material itself they will need to advise you on, but design aspects as well.

Talk with them about what you sort of roof you want and how you want the house to look when it's finished,

## You have to re-roof (Because your roof has failed prematurely)

If your roof has failed prematurely the first thing you must do is **find out why?**

Talk to your builder/roofer, architect/designer and work out what the problems are and what's causing them.

- Was it bad workmanship?
- Was it the wrong material for the environment? If it's badly corroded and rusting you may need to use an aluminium substrate not steel.
- Was it poor maintenance? When was it last washed down or waterblasted?
- Has it been damaged by storms, trees scraping or people clunking all over it?
- Was the pitch too low to allow water run-off? Did this cause ponding?
- Were there penetrations or things like water heaters or solar panels installed on the roof incorrectly?
- Was it poorly designed and does it have unwashed areas?
- Did it have contact with treated timber, or dissimilar metals (e.g. copper) that caused corrosion?

particularly if you want to change its look or add more street appeal.

This can have implications for the whole structure and integrity of your house – things like wind loadings and water flow have to be thought through and planned for before you start anything.

If you want to contact an architect or design professional in your area, see the contacts on inside back cover.

It's important to **get rid of any existing problem(s) before you begin the re-roofing process** otherwise the same things will happen all over again in a few years' time and you will have wasted your money.

Make sure the roofing material is right for the environment; the colour suits the house and the site, and whether the profile is right for the design and look of the house.

### Other things you need to consider:

Does the roof framing structure – rafters, beams, purlins etc – need replacing or repair? It might have warped, split or rotted over the years.

- How are the spouting, down pipes and other rainwater goods? Do they need replacing too?
- How's the insulation in the ceiling space? It's a lot easier and quicker to install insulation when the roof is off.

Talk to your builder/roofer, architect/designer for help and information.

## You have to re-roof (Because your roof has come to the end of its life)

By law all roofs in New Zealand have to have a minimum durability of 15 years. Many roofs will last two or three times as long because the house and roof were properly designed, they used the right materials for the environment, they were installed by professionals and have been regularly washed down and maintained.

But all roofs have a finite lifespan and will eventually fail and will need to be replaced.

When re-roofing it's important to make sure you pick the right roofing system and materials for the house to ensure the replacement roof will last at least as long as the original.

### Other things you need to consider:

- Does the roof framing structure – rafters, beams, purlins etc – need replacing or repair? It might have warped, split or rotted over the years.
- How are the spouting, down pipes and other rainwater goods? Do they need replacing too?
- How's the insulation in the ceiling space? It's a lot easier and quicker to install insulation when the roof is off.

For further advice, talk to your builder/roofer or architect, for help and information.

Before



After





## In all cases

Think about the design of your roof and how it fits with the overall look of your home and how it fits in with your neighbourhood and community. For example, using a roofing profile other than corrugate on an old villa can totally ruin the look of the house.

Is it a severe marine environment? Should you be using an aluminium substrate instead of steel?

Some councils have regulations on the types of colours you can use and others have rules on roofing profile in heritage or environmentally sensitive areas.

Think also about on-going maintenance. Most roofs should be washed down at least once every six months (depending on their climatic environment) so when you're thinking design, remember to make it as easy as possible to get up there and clean it safely.

Look at whether you can cut back or remove any trees or foliage that are blocking your gutters or scraping or otherwise damaging the roof.

For further advice, talk to your builder/roofer or architect, or go to [www.colorcote.co.nz](http://www.colorcote.co.nz).



# Product Overview

ColorCote® pre-painted steel and aluminium roofing and cladding products have been manufactured in New Zealand for more than 30 years.

To ensure all its colours and coatings are more than equal to the worst the New Zealand climate can throw at them, Pacific Coilcoaters runs a rigorous testing regime, with exposure sites at Muriwai Beach on the untamed west coast of the North Island and in the Auckland industrial suburb of Penrose.

There is a six-tier range of ColorCote® pre-painted metal roofing and cladding products – AR8™/ARX™, ZM8™, ZMX™, ZRX™ and ZR8™ – all using the latest coating technology. They have either a steel (with a corrosion-resistant aluminium/zinc alloy coating) or aluminium substrate and each product has a different level of primer and type of top-coat depending on the environment in which it is to be used.

There are ColorCote® systems to suit all New Zealand homes. Which is best for your home is determined by your climatic environment or geographic location.

## ColorCote® ZR8™

Suitable for moderate climatic environments, ZR8™ has a hot-dipped aluminium/zinc alloy-coated steel substrate. It has a waterborne or polyester top coat baked on a polyester primer, giving an extremely durable paint system that resists UV damage and provides excellent gloss and colour retention.

## ColorCote® ZM8™

Suitable for moderate climatic environments, ZM8™ has a hot-dipped aluminium/zinc/magnesium alloy-coated steel substrate which gives it enhanced cut-edge and wet-area performance. It has a waterborne or polyester top coat baked on a polyester primer, giving an extremely durable paint system that resists UV damage and provides excellent gloss and colour retention.

## ColorCote® ZRX™

ZRX™ has a hot-dipped aluminium/zinc alloy-coated steel substrate with a thicker coating of polyester primer for improved corrosion resistance and a 70% PVF2 top coat. This system gives

outstanding gloss, colour retention and durability in severe and industrial environments.

## ColorCote® ZMX™

ZMX™ has a hot-dipped aluminium/zinc/magnesium alloy-coated steel substrate which gives it enhanced cut-edge and wet-area performance. It has a thicker coating of polyester primer for improved corrosion resistance and a 70% PVF2 top coat. This system gives outstanding gloss, colour retention and durability in severe and industrial environments.

## AR8™ and ARX™

Using type 5052 or 5005 marine grade aluminium alloy substrates, polyester primer, a choice of waterborne, polyester or 70% PVF2 top coats, AR8™ and ARX™ are designed for use in all environments, especially severe, very severe marine and geothermal environments and are ideal for wall cladding.



# Huge Range of Possibilities

ColorCote® pre-painted metal roofing and cladding systems provide design flexibility unmatched by any other roofing or cladding material. ColorCote® can be roll-formed or pressed into a range of profiles that not only look great but are warranted to last. It is easy to install and can be adapted to almost any design or construction concept.

It has the strength to span wide spaces with simple and lightweight support systems and can be bent or curved to suit an almost unlimited range of innovative designs and roof pitches.

## Colours

The expansive ColorCote® range of colours gives homeowners a great-looking choice whatever your architectural or design taste.

There are more than 80 colours in the ColorCote® palette – natural, earth and autumn shades, pastels, bold primary colours, metallics and even black and white. If none of these colours suit, custom colours can be manufactured for an additional cost.

## Reflectivity

New Zealand local authorities and councils are looking to reduce the impact of construction and buildings on the visual landscape, particularly in rural, coastal and alpine areas.

Councils are wanting new buildings to blend in with the natural environment and are enforcing reflectivity levels based on standard ASTM E903-96 which measures the average values for reflected solar radiation from building products – the lower the value the less reflected light/glare. All ColorCote® colours have a reflectivity value determined - see the colour chart for details.

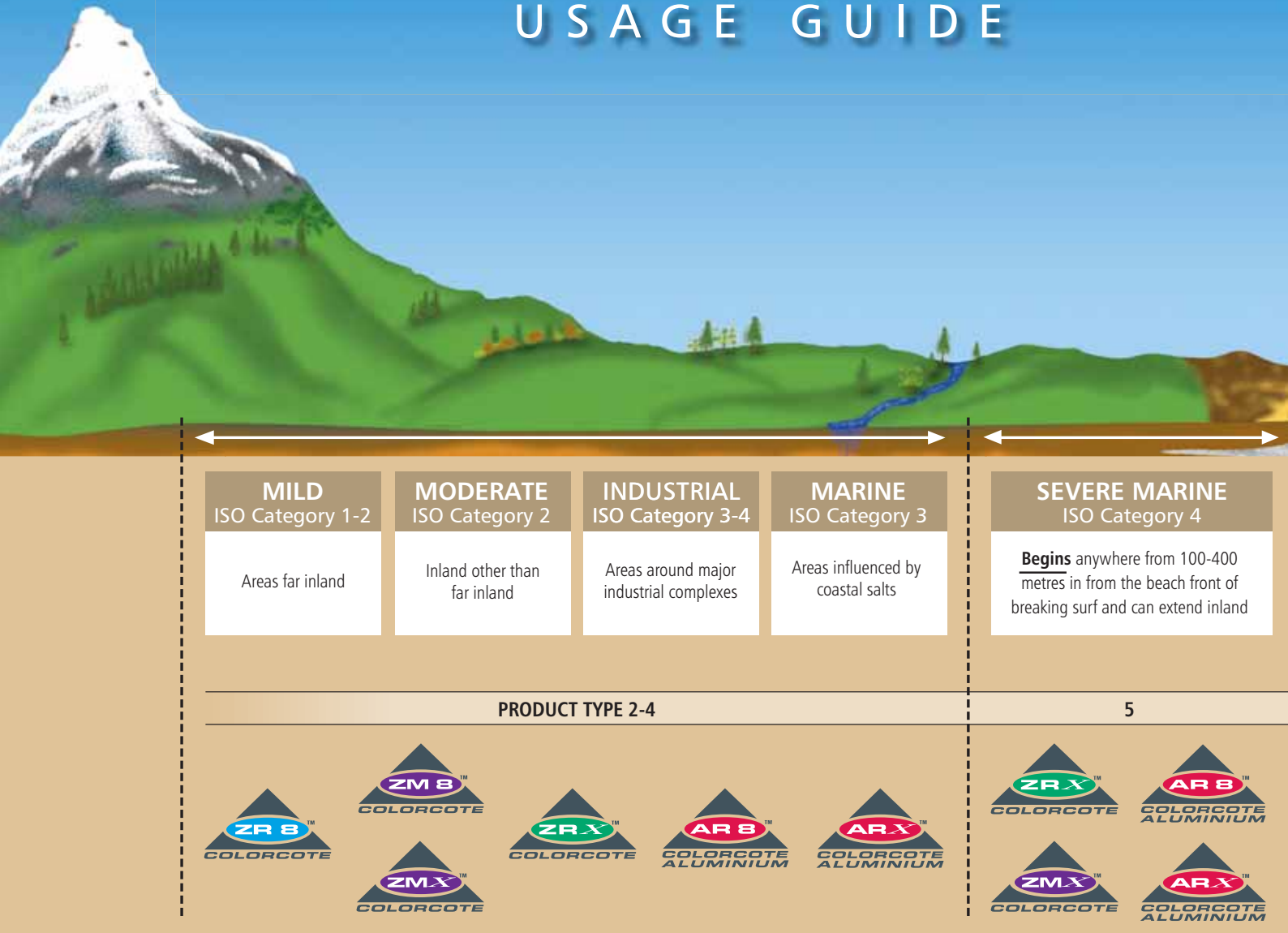
Also, ColorCote® has developed its Naturals range of earthy low reflectivity colours (each with low reflectivity, colour and gloss) to fit in with the New Zealand landscape and to meet the Regional councils' requirements in respect of reflectivity. The reflectivity value for each Naturals colour is listed on the Naturals' colour chart.

See [www.colorcote.co.nz](http://www.colorcote.co.nz) or your local council website for more details.



# Atmospheric Environments

## USAGE GUIDE



## Atmospheric Environments

It is very important to use the correct ColorCote® pre-painted metal roofing or cladding system for the appropriate atmospheric environment. Installing a system designed for moderate environment in a very severe environment

will mean a shorter product lifespan, an onerous maintenance schedule and no protection under Pacific Coilcoaters' warranty programme.

It is also important to recognise that manufacturers' environmental usage tables are only approximate **guides** to local climatic and geographical conditions. Salt-laden sea air does not

stop where the chart says the boundaries are. Prevailing winds and regional topographical variations can amplify the true range of severe marine environments to many kilometres inland from the sea.

A simple rule of thumb is that if you can see the sea from your property an aluminium substrate (ARX™ or AR8™) should be considered.



**COLORCOTE®**  
PRE-PAINTED METAL PRODUCTS

**VERY SEVERE**  
ISO Category 5

Very Severe Marine  
Offshore and anywhere within 100-400 metres  
from the water line of areas of breaking surf  
but can extend inland

Industrial and Geothermal

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If in doubt contact Pacific Coilcoaters for specific recommendations.

The design of your house can also dictate which system should be used. For example a house with a minimum pitch roof with parapets two kilometres from the surf should use ARX™.

The same house with a steeper pitched roof (which allows rainwater to wash off

the worst of the salt residue) could use ZR8™ but the cladding should still be ARX™.

In severe marine environments care needs to be taken with cut edges and penetrations - including screw holes - to prevent the spread of corrosion (with aluminium substrates this is not as critical).

## NOTE:-

These are general guidelines only. Building location, design & aspect also need to be taken into consideration. If in doubt contact Pacific Coilcoaters for specific advice.

See [www.colorcote.co.nz](http://www.colorcote.co.nz) for more details.

Using the best paint system for the job and choosing between a steel or aluminium substrate (depending on the environment) will add years to the life of your roof... and save you money too!!

It can be a false economy to buy a product on cost alone – particularly something like pre-painted metal roofing and cladding that is protecting your home from the elements.

Sometimes the initial installed price may be a little more up front, but over a 30 – 50 year lifespan you'll come out way ahead.

## Think Lifecycle costing.



# Warranty

Most roofing companies will give you a warranty for their products.

However, all warranties are not the same.

Some are prepared to give you a 15-year warranty on a basic roofing system in a harsh or a marine environment.

You might think you're saving money but look closely at the fine print: somebody's going to have to climb up on the roof every month and scrub it down with a hose and brush.

Who's going to do that? ...You?

Even worse; if you don't meet the onerous conditions, and the roof starts to fail after a few years, you'll have to replace it at your own cost.

All ColorCote® roofing and cladding products come with a

Pacific Coilcoaters' written warranty. Residential warranty terms and warranty applications can be accessed by visiting the ColorCote® website: [www.colorcote.co.nz](http://www.colorcote.co.nz).

To avoid problems later on, or for specific advice on your proposed roofing or cladding designs, you can email Pacific Coilcoaters before you start construction with your project details by filling out the online warranty enquiry form.

Pacific Coilcoaters will let you know which is the best coating and substrate solution for the design you want and will also recommend fixings based on environmental and design considerations. This means you'll get the correct ColorCote® product for your home and also means the solution provided will come with a pre-approved warranty.

# Seismic

Because of New Zealand's geographic position on the Pacific rim-of-fire, our homes have to be designed to resist not only our weather but also volcanic or earthquake activity. A ColorCote® roof is strong and secure and also relatively lightweight. A ColorCote® pre-painted steel roof on the average 200 sq. metre home weighs less than 1.5 tonnes. By contrast, a concrete tile roof on the same house could weigh more than 5 tonnes and would require additional structural, engineering and labour costs.

# Design & Installation Fundamentals

When designing your home make sure you take time to look carefully at your roofing or cladding plans. Good design and a bit of good old-fashioned commonsense can save you a lot of time, effort, aggravation and heartache.

If you see anything in this section that you think might cause a problem for your home talk to your architect, builder or roofer about it. Or contact Pacific Coilcoaters at [www.colorcote.co.nz](http://www.colorcote.co.nz).

## Design Issues

The design of your house will affect the life of your pre-painted roofing and cladding. It is best to avoid overhangs and designs that create unwashed areas. These are not naturally washed down by rainwater allowing dirt, salts and other corrosive elements to build up.

Good design can get rid of most unwashed areas at the planning stage.

You also need to think of how the roof is going to be maintained. All roofs need to be washed down on a regular basis so you need to think of how you are going to access the roof. If the pitch of the roof is too steep to walk on safely you might have to hire a cherry picker or crane every time maintenance is required.

Orientation of the roof is important too, particularly in severe environments. It is important when looking at the aspect of the roof that the metal profile is protected from the effects of salt-laden air being driven in from the sea under the roof profile and accelerating corrosion. In severe and very severe environments it is also important that the right roof profile is chosen.

Spouting should be installed carefully as well. The spouting needs to protect the roof profile from corrosive wind-driven water/salts being forced up under the sheets of roofing.

Spouting, valleys and low pitched roofs also need to have the correct fall to prevent ponding which can accelerate potential corrosion. Similarly, correctly installing penetrations will prevent ponding and corrosion.

The underside of all pre-painted metal roofing, including soffits, should be enclosed. The underside paint system is usually only a primer coat which is not designed for exterior exposure and has only limited corrosion resistance.



# Basic Chemistry and the Properties of Metals

When different types of metals come into contact with each other, particularly when water and contaminants are involved, chemical reactions take place which result in the metal higher up the galvanic hierarchy of metals (i.e. metals more resistant to corrosion) eating away metals lower down the order.

Brass, copper, lead and stainless steel are higher up the galvanic hierarchy than the aluminium/zinc-alloy coated steel and aluminium used as ColorCote® pre-painted metal substrates.

Direct contact between these dissimilar metals will cause the ColorCote® systems to quickly corrode.

Water coming from copper and brass pipes or spouting can cause corrosion to pre-painted metal roofing and cladding too.

The best solution is to make sure there is no direct contact between dissimilar metals.

If necessary, inert membranes can be used to isolate two different metals. This is the case when ColorCote® AR8™ and ARX™ are fixed using stainless steel fasteners. A special low carbon (EPDM) washer is used between the two metals.

## Other materials that will cause problems:

- Lead flashings
- Cement will have a corrosive affect on the paint systems and must be wiped off immediately
- Tanalised timber and some other timbers such as cedar can cause galvanic corrosion. In mild atmospheres seal the timber surface with an inert

membrane at the points of contact. In severe and very severe conditions the two surfaces must be fully isolated by a rubber or neoprene gasket.

- Concrete and plaster can cause discolouration to the paint coating which should be protected by an inert membrane where they come into contact.

# Holes, Penetrations, Fixtures and Fittings

Care needs to be taken every time you make a hole in your pre-painted metal roofing and cladding or fix or screw something onto it.

Holes and penetrations can let in moisture and accelerate corrosion if not sealed or flashed properly.

So can fixtures and fittings on your roof such as air conditioning units, fans, aerials, satellite dishes, and solar

panels. Flues and chimneys need to be designed to allow fumes and smoke to dissipate. The roof will need to be washed regularly to remove contaminants.

There are also dissimilar metal issues to be aware of with fixtures and fittings on roofs. Television aerials and copper waste pipes from gas water heaters are just two examples that need to be fully isolated from pre-painted metal roofing.

## Fasteners

It is important to use the correct fastener to install your ColorCote® pre-painted roofing or cladding system. The fasteners should be matched to the expected life of the roof.

For ZR8™ and ZM8™, class 4 coated screws give the best service life. Galvanised nails with ZR8™ and ZM8™ pre-painted washers can also be used.

For ZRX™ and ZMX™, class 4 coated screws are

recommended but galvanised nails **are not** to be used.

Stainless steel or monel metal fasteners **are not** to be used on ZR8™/ZM8™ and ZRX™/ZMX™ systems.

For ARX™ or AR8™ systems, 304 stainless steel or aluminium screws **must be used**. Holes should be drilled oversize to allow for movement and profiled low carbon (EPDM) washers used to isolate the different metals.

## Maintenance

All roofing and cladding products require regular maintenance to keep them looking good, to prolong their life and to meet the terms of any product warranty.

The best way to reduce the amount of maintenance required is to pick the right product for the environment.

The extremes of temperature, harsh UV rays and salt-laden sea air all eventually take their toll on all New Zealand buildings.

That's why it's important you get the correct pre-painted metal roofing and cladding system for your house whether you're living in the city, beside the sea or out in the country.

The harsher the environment the more important it is that a regular maintenance schedule is followed – particularly regular washing down of roofs and cladding – to maximise service life and appearance.

## Basic Maintenance Needs:

- All roofing and cladding needs to be washed down with clean water and a soft-bristle brush or sponge on a regular basis. For larger areas water blasting at moderate pressures might be more appropriate. How often depends on the pre-painted system and the severity of the building's environment. Give special attention to unwashed areas and around penetrations and fixtures and fittings. Pacific Coilcoaters recommends roofing or cladding should be washed down a minimum every six months or more often if contaminant build-up occurs.
- Take sensible safety precautions when climbing on a

roof. Secure your ladder properly, use non-slip shoes and safety harnesses if necessary, and don't go up on a roof in wet, windy or icy conditions. Make sure there is someone else with you as a safety back-up.

- If you are not comfortable doing it yourself get a professional in. It should be done on a regular basis to meet the terms of your warranty.
- Clean and clear gutters and downpipes regularly too.
- Make sure fasteners are also washed. If fasteners are corroding they should be replaced to avoid damage to the roofing material.

# Step by Step Guide for ColorCote® re-roofing



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The new roof is installed to good trade practice standards.



12

While the roof is off you can get new insulation put in. It is a lot quicker and easier for the installer and so it should be cheaper too. Any repairs are made to the timber roof structure and new purlins installed if necessary.



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Once the paperwork is approved, your new roof is ordered and delivered to site. The old roof is removed (if the existing roof is metal it can be recycled; don't let it be carted off to the landfill).

Check with your roofer/roof supplier or Pacific Coilcoaters that your project meets pre-approved ColorCote® warranty conditions.  
[www.colorcote.co.nz](http://www.colorcote.co.nz)

Are there any big spans, curves or bends? Will that impact on which ColorCote® system you choose? What roofing profile is suitable for this design? Do you need to check with your architect/designer or the roof manufacturer?

Which way's north? How much sun will the site get and which way should you orientate your living and outdoor activities? Do you need to consider the roof's aspect to avoid wind/weather issues?

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# 1

Find a reputable roofing company and tell them you are looking to re-roof your house. Ask your own network of family/friends or see the contacts list for a list of top tradesmen near you. Go through all the issues regarding your current roof and why you want to or have to re-roof your home and sort out any potential problems before you begin.

# 2

Ask questions. Work with your roofer to get the roof you want. If your roof has failed find out why. If it has failed prematurely do you know how you will stop it happening again? Consult an architect or designer if necessary or contact us at [www.colorcote.co.nz](http://www.colorcote.co.nz).



# 3

Does the design of the roof enhance the overall design of the house?

Will the roof be easy to install and maintain?

Does it matter?

Do you need a building consent?

# 4

Can you design out any sheltered or overhanging areas or other features that allow the build up of salts and other contaminants and which might affect the long term performance of the roofing?

# 5

How can you keep penetrations and aerials and other fixtures to a minimum?

Which ColorCote® pre-painted metal system should you use? Your environmental profile will tell you. What is the natural environment like? What sort of climatic conditions? How far from the ocean or harbour? Prevailing winds? Harsh winters or summers? Any seismic or geothermal activity nearby? Industrial sites or airports?

Colour: How does the roof colour work with the overall house colour scheme? Is it an expression of your personality? Will the colour scheme jar with its environment? Does it matter? Are there any local authority restrictions on the colours you can use?

# 7

# 6

# Sustainability and Recycling

Pacific Coilcoaters has an on-going commitment to sustainability and continuous product and process improvement. Recent developments include fully water-based coating systems and nil-chrome systems

The company has developed processes to minimise water use with on-site cooling, recirculation and recycling processes.

Fumes generated during the paint curing process are reused as fuel for the paint drying ovens, reducing the plant's overall energy costs. Excess heat from the drying

process is also used to heat the factory in winter.

All ColorCote® products are coated with paint systems which are lead and cadmium-free and suitable for rainwater collection.

All ColorCote® pre-painted steel and aluminium products are recyclable. Any scraps or old roofing material can be recycled in New Zealand.

Pacific Coilcoaters recycles or reuses all its scrap materials.

# Where to go for more information, ideas or help?

Pacific Coilcoaters recommends you always use a registered architect or reputable designer for your roofing and cladding designs.

The following links may be helpful:

New Zealand Institute of Architects (NZIA): [www.nzia.co.nz](http://www.nzia.co.nz)

Architectural Designers New Zealand (ADNZ): [www.adnz.org.nz](http://www.adnz.org.nz)

All metal roofing and cladding should be installed according to the NZ Metal Roofing Manufacturers' Code of Practice.

See the MRM website for more details:

Metal Roofing Manufacturers Inc: [www.metalroofing.org.nz](http://www.metalroofing.org.nz)

Roofing Association of NZ: [www.roofingassn.org.nz](http://www.roofingassn.org.nz)

For overall building/construction information:

Registered Master Builders' Federation: [www.masterbuilder.co.nz](http://www.masterbuilder.co.nz)

New Zealand Certified Builders' Association: [www.certified.co.nz](http://www.certified.co.nz)



**COLORCOTE®**

PRE-PAINTED METAL PRODUCTS



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