

Ever thought a house or building would look great painted in a darker colour - then had to shelve plans for fear of the heat damaging the substrate or the building getting unbearably hot in summer? Now you can.

Resene CoolColour™ technology makes painting exterior surfaces in darker colours both easier and safer. It can be used on all sorts of exterior materials and applications, from weatherboards and concrete to windowsills. A Resene CoolColour looks like a normal colour but thanks to special pigment technology it reflects more heat, so it doesn't get as hot as a normal colour would.

Resene CoolColours are created by replacing the standard carbon black pigment that absorbs heat and light with a unique pigment that enables much of the infrared portion of the sun's energy to be reflected. Visible and U.V. light will still impact the sun's heating effect on the exterior surface.

This cooling effect can also be seen in plants. Most plants have leaves of very high chroma green. If those leaves reached the same temperature when exposed to solar radiation as those of a similarly coloured paint they would shrivel and die. They don't because the pigment - chlorophyll - absorbs what it needs from the visible range to photosynthesise but reflects the infrared range, keeping the plant cooler.

Enjoy the benefits of using a Resene CoolColour finish:

1. A reduction in the sun's heating effect on exterior surfaces.
2. Reduced heat related substrate movement, which helps improve the durability of both the substrate and the paint system. This is important for most cladding types.
3. Ability to choose a darker colour than you might otherwise be able to.
4. Depending on the project, reduced air conditioning cooling costs (on a like for like colour basis).

Resene CoolColours are available in most Resene exterior finishes including exterior paints, exterior wood stains, specialist finishes for concrete and building exteriors as well as stains and coatings for timber decking and paths.

Resene CoolColour technology works best in dark shades most prone to heat build-up, including popular colours such as Resene Nero, Resene Karaka and Resene Napa.

A wide range of Resene CoolColour hues are now available - see colours marked with a cc on Resene colour charts or view online at www.resene.com/colour.

Check with your Resene ColorShop or representative to see if a Resene CoolColour is right for your project.



Resene

the paint the professionals use

1800 738 383
www.resene.com.au

0800 RESENE (737 363)
www.resene.co.nz

Keep your place cooler with a Resene CoolColour™



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Home painted in Resene Lumbersider CoolColour™ Oilskin. Project by Lapp & Toft Architecture.



Home finished in Resene Waterborne Woodsman CoolColour™ Tiri. Photo courtesy of Abodo Wood.



Home stained in Resene Waterborne Woodsman CoolColour™ tinted to Resene Pitch Black. Project by Jerram Tocker.

FAQ

Q: Will using a Resene CoolColour eliminate heat related issues with timber?

A: Using Resene CoolColours will reduce the likelihood of heat related issues affecting the timber but will not eliminate them. There are many variables that are beyond our control, such as the condition of the timber, the condition of previously applied paint coatings and the moisture content of timber.

Take care when considering dark colours on old previously painted timber and in extreme exposures. You may be best to choose a lighter colour instead.

Q: Will the Resene CoolColour version of a standard colour look the same?

A: A change in tone or product may be required for some colours to achieve a Resene CoolColour effect. Resene CoolColour and standard variants of a specific colour use different pigment combinations by necessity to achieve a match to the same Resene master colour standard. This can cause slight colour differences depending on the degree and type of light, which naturally varies with the time of day.

Q: Do I need a CoolColour primer/undercoat if using a CoolColour?

A: We use two different black pigments in our CoolColour range, 'U' tinter that reflects infrared light and 'Z' tinter that allows infrared light to pass through without absorbing the heat energy.

A CoolColour made using 'Z' tinter must have a 'solid' base of CoolColour primer/undercoat (such as Resene Quick Dry primer undercoat) applied underneath it. This CoolColour primer/undercoat beneath then reflects the heat energy back through the CoolColour topcoat. 'Z' tinter is usually used for cleaner blacks, like Resene Nero. The CoolColour primer/undercoat must be opaque with complete coverage to be effective. This often means two coats of the CoolColour primer/undercoat will need to be applied.

For a CoolColour made using 'U' tinter, the 'U' tinter will enable the

topcoats to reflect more infrared light and heat than a standard version of that colour. A CoolColour primer/undercoat is optional. Using a CoolColour primer/undercoat will provide optimum heat reflection.

Your Resene ColorShop staff will be able to advise if the colour you are considering must have a CoolColour primer/undercoat.

Q: Resene CoolColours are available in Resene Woodsman wood stains; is this the same technology as the Resene CoolColour paints?

A: Yes, though a primer is not required. Depending on the Resene CoolColour pigment used, infrared heat energy will either pass through the stain to the timber surface itself where it dissipates through the timber or the stain will reflect the heat.

Two coats of Resene Woodsman CoolColour is more effective than one coat. Three coats is more effective than two coats. There is no discernable improvement in heat reflectance beyond three coats.

Q: Many local authorities and cladding suppliers require that colours deeper than their required or recommended LRV (light reflectance value) cannot be used. Is that correct?

A: Yes, although this is changing. LRV only considers how a colour looks, not how it performs. It does not consider innovations like Resene CoolColour that look normal but reflect more heat. Resene can provide more robust TSR (Total Solar Reflectance) measures for use in assessing heat absorption. Most local bodies and cladding suppliers are comfortable with Resene supplied alternative TSR measurements.

Q: Will the use of a Resene CoolColour reduce how warm my home gets in winter?

A: With an insulated house there will not be a significant or notable level of heat loss. If it is cold outside, your home's exterior will be cold too. Passive heating during winter is minimal at best, and any small loss is outweighed by the reduced heat build-up in warmer months.

Q: Can I use any dark colour on my home exterior, provided it's a Resene CoolColour?

A: No, using a Resene CoolColour version may allow you to use a deeper colour than you otherwise might, but on old unsound surfaces, especially over old coatings and timbers, you may be best to choose a lighter colour. Resene CoolColours reduce but will not eliminate all heat related issues on timber, iron, UPVC and other substrates, including old paint coatings.

Q: Which products can I get a Resene CoolColour in?

A: Choose from Resene Lumbersider waterborne low sheen, Resene Sonyx 101 waterborne semi-gloss, Resene Hi-Glo waterborne gloss, Resene Summit Roof waterborne roof paint, Resene Enamacryl waterborne gloss enamel, Resene Lustacryl semi-gloss waterborne enamel, Resene SpaceCote Flat waterborne enamel, Resene Super Gloss enamel, Resene X-200 weathertight membrane, Resene Walk-on, Resene AquaShield mineral effect, Resene Non-Skid Deck & Path, Resene Woodsman Decking Oil Stain, Resene Waterborne Woodsman wood stain and Resene Woodsman Wood Oil Stain.

Q: Will using a Resene CoolColour cost more?

A: Yes, the Resene CoolColour version typically costs approx. 10% more than the standard version of the colour. This is likely to be outweighed by the benefits, especially the improved durability.

Q: How does the Resene CoolColour technology work?

A: All dark colours absorb a lot of light as well as heat from the infrared rays of the sun, which can cause significant temperature build-up on the surface. The Resene CoolColour technology absorbs visible light so the colour looks like normal while also reflecting energy in the near and far infrared region, which reduces heat build-up. This means a Resene CoolColour will look like a standard colour but surface heat will build-up slower and to a significantly lower level than a 'not so cool' traditional colour.



Naenae Special Needs unit painted in Resene AquaShield CoolColour™ Storm. Project by Stephenson&Turner.



Adidas Head Office painted in Resene Sonyx 101 CoolColour™ custom tinted to Adidas Black. Project by Exception Interiors.



Cambridge National Hotel painted in Resene Sonyx 101 CoolColour™ Double Cod Grey and Resene Shuttle Grey. Project by Antanas Procuta Architects.