

Thermal Dry Zone Walling System

A light-weight, weatherproof, external cladding system that provides moisture management, insulation and impact resistance

A thermal cladding system

First impressions count. That's why the ROCKCOTE Thermal Dry Zone Walling System has been designed to deliver a high quality, exterior rendered finish that makes a home truly distinctive. Delve beneath the stunning exterior and there is much more to explore. It has been said that a house is a place where people live, but home is where the heart is. Homes built with the Thermal Dry Zone System are homes with heart. They are liveable, comfortable and calm.



With the impressive aesthetics of ROCKCOTE's seamless render system, this exterior cladding system features a ventilated cavity that separates unwanted outside temperatures from the interior environment, enabling year round comfort.

The ROCKCOTE Thermal Dry Zone Walling System is a lightweight, weatherproof external wall system that provides moisture management, insulation, impact resistance and aesthetic finishing all in one system. The Thermal Dry Zone System is accompanied by a watertight guarantee against leaking.

Design flexibility

The ROCKCOTE Thermal Dry Zone Walling System can be used for a range of different home types, build styles and blocks.

Entire homes, single storeys (upper or lower), duplexes and townhouses can all benefit from the improved design flexibility and beautiful rendered finish of the system,

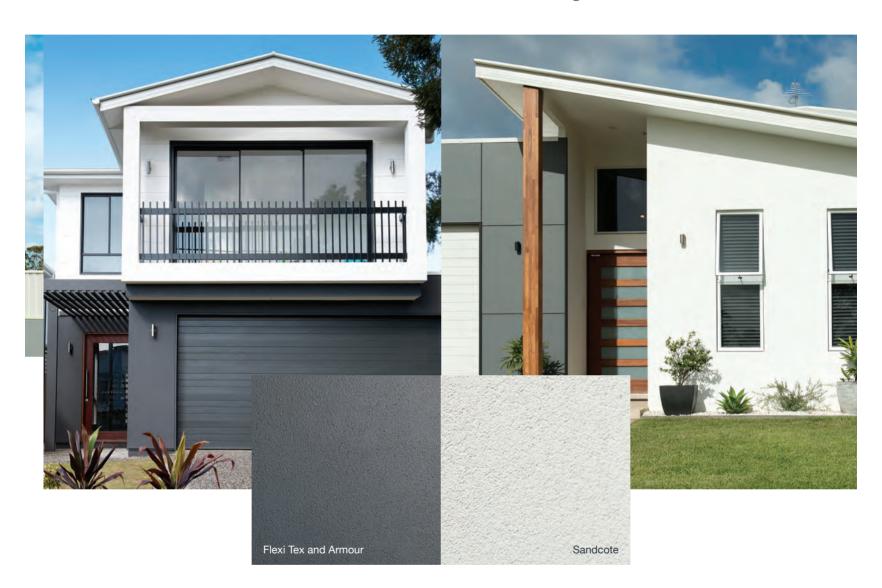
Designers can maximise the capabilities of the polystyrene system that is easily cut to shapes impossible to achieve with bricks.

This flexible system is ideal for:

- > Architecturally designed homes
- > Building or rebuilding in a character controlled area
- > Achieving a smooth rendered finish without bricks
- > Developments where covenants require homes to utilise more than one finish or substrate
- ➤ Contemporary designs where different substrate and finish styles are sought
- > Challenging blocks or difficult to access locations where brick or concrete can be cumbersome

Finishing options

The ROCKCOTE Thermal Dry Zone Walling System is designed to be complemented by one of ROCKCOTE's high performance render systems with a textured finish. The walling and render systems work together to deliver the best possible finish that is highly durable and easy to maintain. The most common finishes used with the Thermal Dry Zone System are a textured painted finish or a natural sand finish. Both finishes are available in a wide range of colours.



Textured painted finish

ROCKCOTE Flexi Tex with ROCKCOTE Armour is a highly durable system using an acrylic texture overcoated with a high performance membrane paint. This finish is contemporary, low sheen, easy to clean and recommended for projects where regular retouching is required.

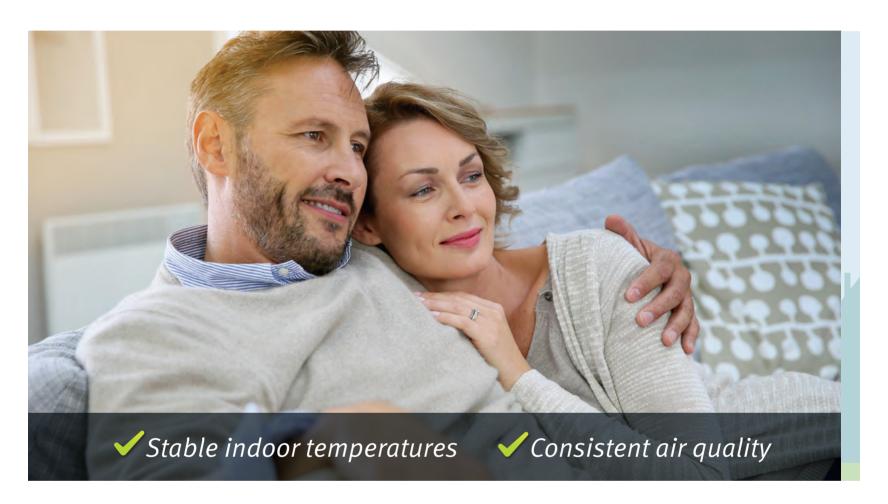
Natural sand finish

The ROCKCOTE Texprime and ROCKCOTE Sandcote system is our most popular Coloured Render finish, delivering a natural, flat finish. It is overcoated with ROCKCOTE Clearcote or ROCKCOTE Repel for added durability.

"People buy a house from the front. Even before they meet with an agent they have seen a façade shot and driven past. It is an important aspect and the first impression of the site so it has to be appealing and the render helps to give it that appeal."

Why are homes built with the Thermal Dry Zone System more comfortable?

Homes built with the ROCKCOTE Thermal Dry Zone Walling System offer year round comfort, more consistent indoor temperatures and air freshness not experienced in standard homes.



Comfortable indoor environments have stable temperatures. Insulating a building provides a far more comfortable and healthy living environment than one created by artificial heating or cooling. In poorly designed homes, people resort to artificial heating or cooling to adjust indoor temperatures. This is due to the interior surfaces emitting unwanted exterior temperatures.

The battle between the exterior and artifical indoor temperatures creates constant changes in the ambient temperature, confusing the body and creating unease.

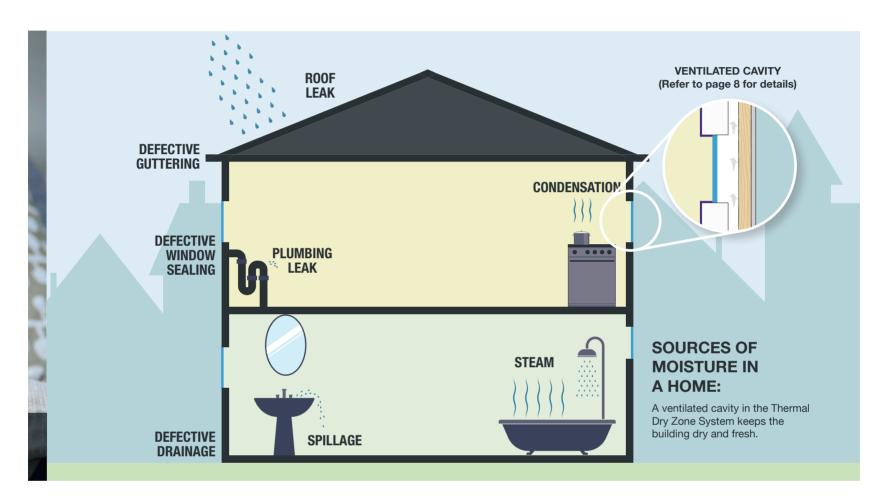
The inherent insulation in the Thermal Dry Zone System provides continuous thermal insulation around the entire outside of the building, much like a blanket. It protects the home from both hot and cold temperature extremes helping to moderate the indoor temperature for year round comfort

"Humans are comfortable only within a very narrow range of conditions. Our body temperature is about 37°C, despite the fact that the body generates heat even while at rest: we must lose heat at the same rate it is produced and gain heat at the same rate it is lost ... Approximately 40% of household energy is used for heating and cooling to achieve thermal comfort."

- Design for Climate, Australian Government

Why is a Dry Zone important?

Water damage is one of the most devastating and expensive issues that can occur to a building. Prolonged presence of moisture within a wall can also promote the growth of mould and mildew that permeates through the wall to the interior air space, reducing air quality and negatively impacting the health of the occupants.



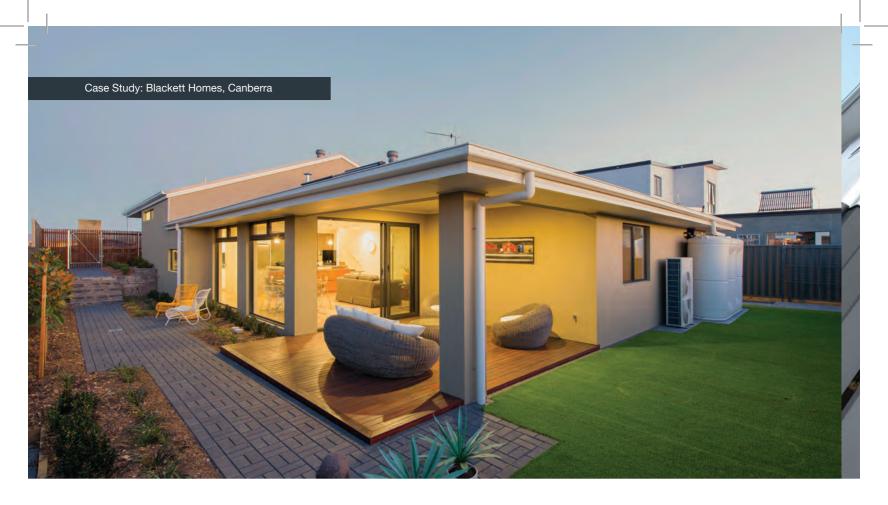
The Thermal Dry Zone System effectively manages moisture from both the inside and outside of the home, resulting in a healthier home that lasts longer.

The ROCKCOTE Thermal Dry Zone Walling System keeps the interior frame of the building dry and the air fresh. A ventilated cavity between the building frame and the insulation helps to dissipate any moisture that enters the walls from the inside of the home – humidity from the body, condensation from windows and other cold surfaces, cooking and clothes dryers.

From the outside, the render system forms a raincoat over the entire building, preventing water ingress. Any water that does get in is immediately channelled

outside through ground level vents, keeping the interior of the home dry and healthy. Any remnant moisture evaporates as the air naturally circulates through the cavity space within the walling system.

By effectively managing moisture from both inside and outside the home, the Thermal Dry Zone System reduces the build-up of condensation within the walls, and prevents the growth of mould and fungi, resulting in a healthier home that lasts longer.



A stylish alternative to brick veneer

This home, built by Blackett Homes, sets the bar for project homes in the Canberra region by offering spacious interiors, stylish inclusions and a quality rendered finish.

Blackett Homes Sales Manager, Rick Meir, said customers had been seeking an alternative to brick veneer and the ROCKCOTE Thermal Dry Zone Walling System provided a sophisticated and affordable option.

"Many home buyers love the contemporary look of a rendered and painted exterior finish – it can really make an impact and improve street appeal," he said.

Textured painted finish for durability

The inviting façade of the home, in the new suburb of Coombs, combines the ROCKCOTE render finish with timber and local bluestone. The flat, smooth look of the render was achieved with a ROCKCOTE texture and membrane system.

Rick said that working with the Thermal Dry Zone System was a dream for designers with greater design flexibility than brick.

In a climate that can reach minus seven degrees in winter and over 40 degrees in summer, the insulative properties of the system means homeowners will save money on energy costs over time.

Project features:

Four bedroom family home
Full ROCKCOTE Thermal Dry Zone Walling System
Textured painted finish: ROCKCOTE Acrylic
Texture Medium with ROCKCOTE Armour

"The finish looks amazing and then you couple that with how much more insulation it provides compared with a standard brick veneer. The Thermal Dry Zone System effectively keeps the hot or cold air out. Being lightweight, it also cools down quickly resulting in a more consistent indoor temperature."



Durability, comfort and better air quality

In Brisbane, entire suburbs are being reimagined by renovations and rebuilds that are contemporary, yet meet the aesthetic requirements of character controlled areas.

This home in Cannon Hill uses clever design and a stylish render/cladding combination to suit the streetscape yet still look contemporary.

Designed and built by H4 Living, the home is true to the company's intention to create a generation of homes integrating resilience, liveability and low operational energy into the core of the design.

H4 Living New Home Specialist, Jacqueline Dwyer, said the home was based on Passivehaus design principles with natural light and airflow reducing the energy required to maintain comfortable temperatures creating better indoor air quality than the standard home.

Jacqueline said that using the ROCKCOTE Thermal Dry Zone Walling System for the lower level of the home complemented the other sustainability initiatives and provided a point of difference aesthetically.

"The ROCKCOTE system is thermal and insulative. That, combined with other insulative properties of the home means that you don't have to turn on air conditioning for the home to be a pleasant, comfortable temperature."

"For the homeowner (this system) is low maintenance and highly durable. If you bump it with a mower or kids hit it with a cricket bat, it can be easily repaired. It's a lot more durable than other external finishes," Jacqueline said.

Project features:

5 bedroom, 3 bathroom home

ROCKCOTE Thermal Dry Zone Walling System ground floor; cladding upper floor.

Textured painted finish: ROCKCOTE Flexi Tex with ROCKCOTE Armour

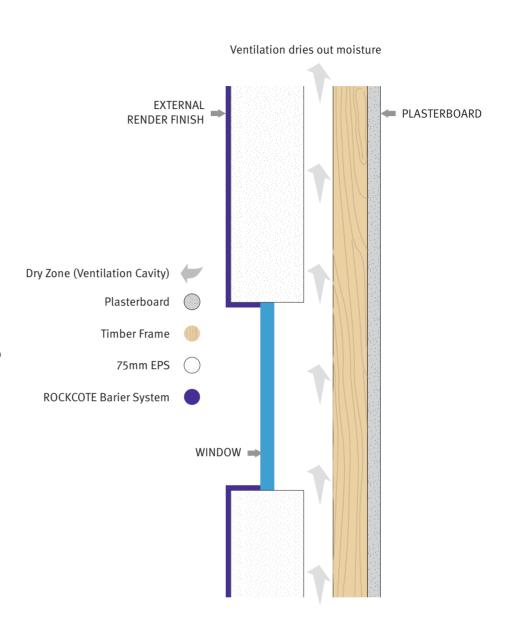
"This home will be really pleasant to live in. People who come into our homes say they feel more solid and different to other homes. You don't have pests living in your walls because they are well sealed. You don't need to worry about moisture in the walls so there is better air quality which makes for a healthier home."

Efficient insulation

According to the Australian Government Your Home website, "insulation acts as a barrier to heat flow and is essential for keeping your home warm in winter and cool in summer. A well-insulated and well-designed home provides year-round comfort, cutting cooling and heating bills by up to half. This, in turn, reduces greenhouse gas emissions."

The Thermal Dry Zone System provides an efficient insulated exterior that will ultimately reduce energy consumption, save money and decrease the environmental footprint of the building. This is because the continuous insulation is placed on the outside of the building where it works best, helping to stop the outside temperatures entering the building fabric.

The most economic time to consider insulation is during construction when insulation can be combined with passive design techniques and other energy saving and comfort enhancing initiatives.



R-Value explained

The standard by which insulating ability is measured is called R-Value, which measures resistance to heat flow. The higher the R-Value, the higher the level of insulation and the better the thermal performance of the building. The minimum insulation levels (or total R-Value) recommended in most areas around Australia (excluding the snowy mountains) is 2.8.

However the Your Home website states "it is generally advisable to exceed these for greater comfort and energy savings".

ROCKCOTE's Thermal Dry Zone Walling System using 75mm EPS has an R-Value of 3.1. This is enough to provide the required level of insulation to achieve a 5-star energy rating without the need for further insulation products. By contrast, the R-Value of brick without insulation is 0.7.

Brick

R0.7

ROCKCOTE Dry Zone

R3.1

How the Thermal Dry Zone System works

Installing the Thermal Dry Zone System

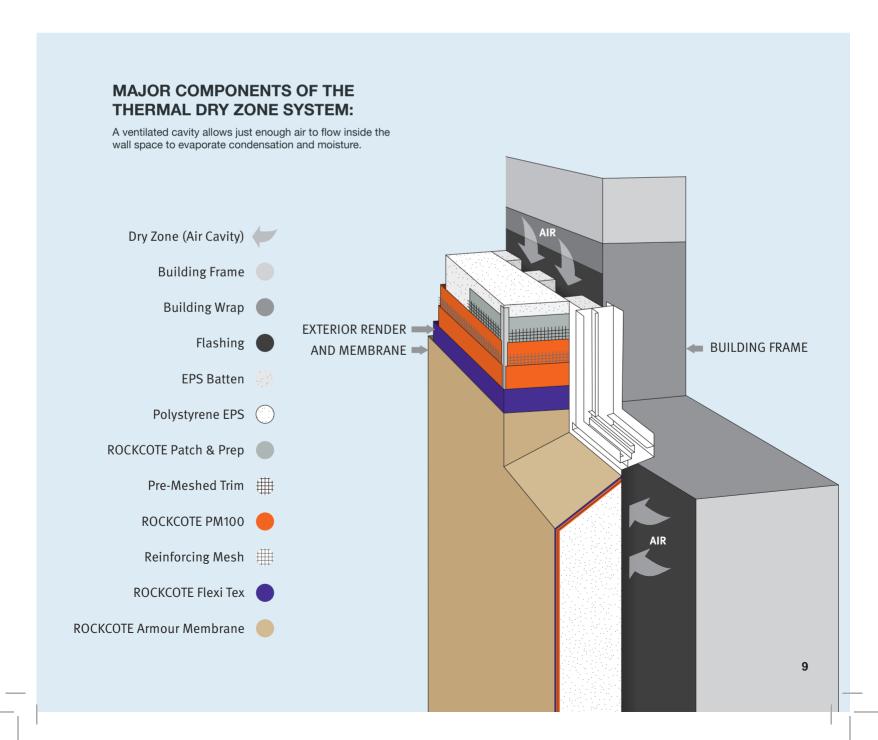
The frame of a building provides the main strength and structure regardless of whether the walls are made of lightweight materials or brick. The Thermal Dry Zone System is installed after the frame is constructed. ROCKCOTE works closely with installers, providing a full installation manual covering the necessary components and technical information.

Cladding and the ROCKCOTE render system

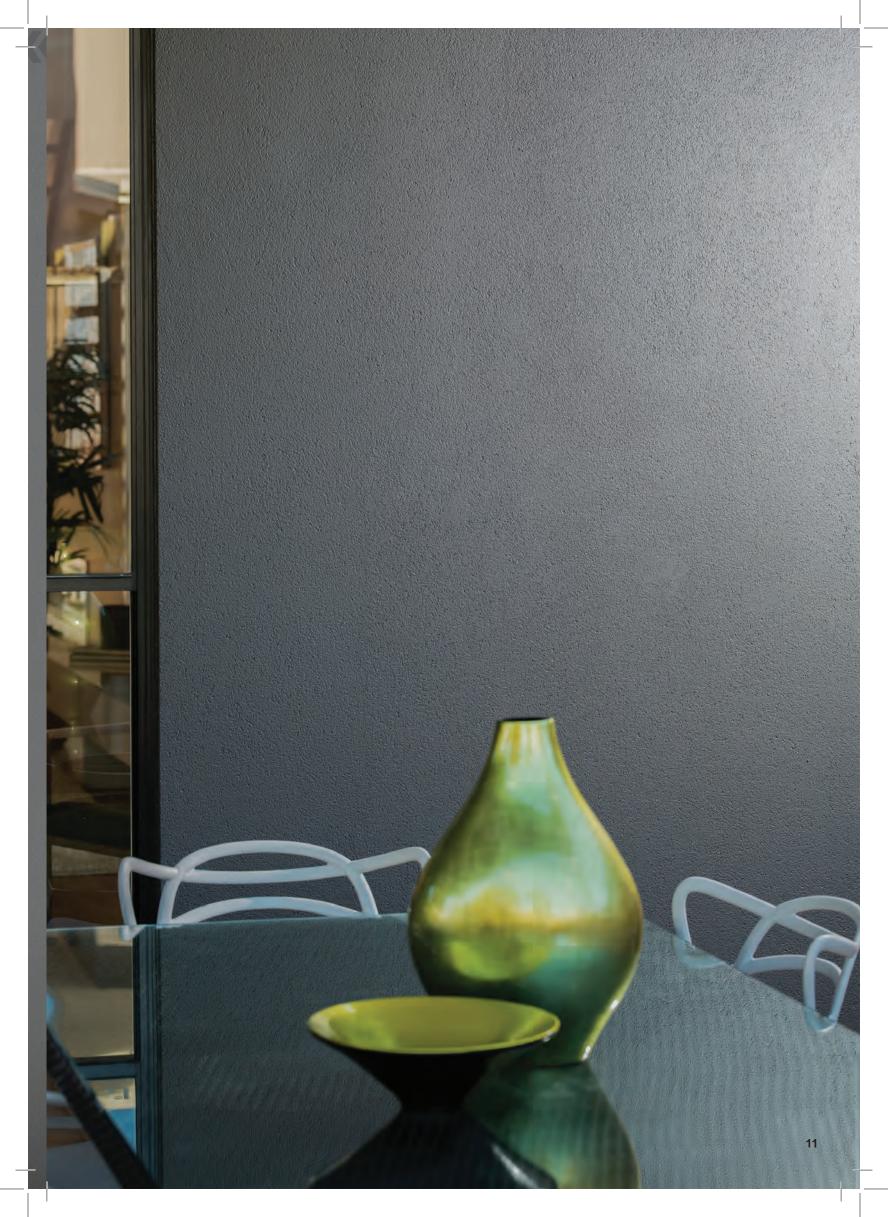
EPS cladding panels used in the Thermal Dry Zone System deliver excellent insulation and act as the base of the barrier walls. The walls are then coated with a complete ROCKCOTE render system. The products used in the system depend on the finished aesthetic sought. The final coat is a high film build membrane paint that adds durability and flexibility while making the coating system easier to maintain.

A weather tight, ventilated system

During the construction process, important elements are put in place to ensure the building is weather tight without impeding the airflow and backup drainage aspects of the system. The ventilation and airflow assist in keeping a controlled temperature inside the building, help to reduce condensation within the walls and help to maintain a consistent temperature.









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