

| Facade | Residential Construction | StoPoren Cladding Systems |

## **StoPoren**

StoPoren Panel Cladding & StoPoren Block Veneer Systems for Residential Construction

## Sto the international brand

Selected with confidence worldwide



Growth on a solid foundation: Since its establishment in 1835, Sto has undergone an astonishing course of development, from a simple German lime and cement works into one of the leading suppliers of facade systems high-quality exterior and interior plaster systems and coatings. Sto with subsidiaries and distribution partners in over 50 countries worldwide has a precise understanding of local climate conditions, architectural styles, building practices, standards and cultural differences. As the authorized partner of Sto for Australasia, Stoanz Ltd is committed to the Sto philosophy. Today having developed a full range of Sto plaster cladding systems that have been tested and certified by BRANZ for the market, Sto is recognized as a leading supplier of quality plaster systems.



## People and architecture, Sto provides the link

Architecture plays an important role in our lives. It lends urban and rural landscapes character, and should ideally be embedded in an intact environment. For us, "Building with conscience" means enhancing functionality and aesthetics on a sustainable basis and creating an environment in which people feel at one with their surroundings. Apart from researching, developing and marketing Sto products, systems and services, we also attach great importance to optimising the value added process for trades people, architects and building owners alike.





# We respect the interests of people and nature at all times

In order to define and implement its ecological targets, Sto has developed a system of environmental management conforming to international standards. This relates to the entire process chain - from the procurement of the raw product, to production, packaging and logistics. Sto's products make a clear contribution towards improving the quality of the environment.

## **StoPoren Cladding Systems**

Solid economical systems based on traditional construction methods

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The manufacture of AAC is highly efficient, using materials derived from naturally occurring resources which are abundantly available, coupled with a process that expands their volume by up to five times. This is energy efficient, emits no pollutants, has zero toxic waste and recycles any manufacturing waste back into the mixing process. The finished products are breathable, inert and contain no toxic ingredients. On site building waste is minimal, due to the ease of cutting to size and re using the off cuts.

## Sto Poren Panel & Block Construction

Aerated autoclaved concrete, consists of sand, cement, lime, gypsum, water and an expansion agent. When processed this expands up to five times to achieve a weight 20% of concrete with an air content of 70-80% depending on density required. Unlike concrete, AAC is produced using aggregates no larger than sand which when processed are placed into an autoclave chamber and pressurised at 8 - 12 bars. Simultaneously, the product is heated at temperatures of up to 190 degrees Celsius to trigger the quartz sands reaction with the calcium hydroxide to form calcium silica hydrate that imparts the inherent strength of the material.

Developed in Europe, the technology became commercially viable in the 1930's and is now available world wide. Currently, there are ver one hundred major factories in production, producing precast panels and masonry blocks for use in the construction industry. This easy to use versatile building material has gained popularity as a durable energy efficient system with the aerated composition providing insulation, fire protection and sound absorbent properties that are necessary in residential and commercial construction.







#### Design & Build with Sto Poren

Whether building a masonry block veneer or panel cladding, these solid materials provide opportunities for designers to offer clients exterior plastered facades over durable, solid substrates that are incombustible, sound absorbing and thermally stable. The materials are easily cut allowing the designer freedom to create clean straight lines.

## Green build for a healthier environment

## **StoPoren Panel Cladding System**

A solid economical system based on traditional panel construction methods

#### **StoPoren Panel Cladding System**

The StoPoren Panel Cladding System, uses a reinforced Autoclaved Aerated Concrete (AAC) panel, which is a solid, inert, lightweight masonry material that is suitable for both residential and commercial building. The cladding system is based on a cavity construction, using 2200 x 600 x 50mm StoPoren Panels laid horizontally. The StoPlaster system, produces a solid, permanent building with interlocking flashings that provide a seamless cladding system.

This plastered cladding system uses modern technology to provide a well engineered and durable economical solution for the property owners investment.

Solid Panel Veneer Construction •Dry Cavity Design •Time efficient construction programme •50mm reveals to set joinery back •Cost efficient building system for the residential market •Breathable light weight concrete for vapour permeability •European breathable coloured plaster systems designed and tested for New Zealand.





Tested mortar for strength





## StoPoren Plaster System: Standard Spec SS500



## **StoArmat Miral Plaster System: Standard Spec SS501**



#### Perfect interaction

- 1 StoPoren Panel
- A solid reinforced lightweight concrete panel. 2 S-Protect WS205 Silane
- European silane sealer with water repellent and stability properties. 3 Poren Plaster 4/5 mm
- Mineral plaster with good adhesion properties, water retention agents and machine application properties.
- 4 Plus: Sto European Mesh 4/7mm Easy to install, meets the highest requirements for crack, stress and alkalinity resistance.
- 5 StoPlex W Sealer Sto consolidating primer with siloxane additives. Deep penetration for adhesion with absorbency regulating and water repellent properties.
- 6 StoLit K & MP Coloured Finishing Renders Sto manufactured, organically bound, strong, hard wearing, impact resistant, pre coloured finishing renders. (contains no cement).
- 7 StoColor Maxicryl Matt facade paint. StoLastic Colour - Satin matt facade paint. European manufactured and certified durable facade paints available in a full range of colours.

#### Perfect interaction

1 StoPoren Panel

A solid reinforced lightweight concrete panel.

- 2 S-Protect WS205 Silane European silane sealer with water repellent and stability properties.
- 3 LevelLite or Poren Basecoat Plaster Lightweight mineral plaster with good build properties, water retention agents and machine application properties.
- 4 StoArmat Classic: Reinforcement Plaster European manufactured and certified, strong, flexible, impact resistant, white reinforcing plaster in a pail. Contains a calibration grain ensuring correct mesh coat thickness. (contains no cement).
- 5 Plus: Sto European Mesh Easy to install, meets the highest requirements for crack, stress and alkalinity resistance.
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## **StoPoren Block Veneer Construction**

An economical system based on traditional brick construction

#### **StoPoren Block Veneer** Construction

The StoPoren Block Veneer System is based on traditional brick construction, using 600 x 200 x 75mm StoPoren Blocks with reinforced lintels. The StoPoren Plaster and flashings provide a seamless masonry block veneer.

Using modern technology engineered with lightweight concrete materials, this plastered block system provides a strong, durable and economical solution for the property owners Investment.

#### Construction

• Dry Cavity Design - which eliminates soffit venting and building wrap rattle •75mm thick reveals to give substance to the facade •Large lightweight blocks result in fast track construction •Cost efficient building system for the residential market •Reinforced lintels for openings •Breathable light weight concrete matrix for vapour permeability •StoPoren coloured plaster system specifically designed and tested on lightweight block •BRANZ Appraised for NZ Building Code







strength



BRANZ Appraised Appraisal No.739 [2012]

## **StoPoren Plaster System: Standard Spec SS505**



## **StoArmat Miral Plaster System: Standard Spec SS506**



#### Perfect interaction

- 1 StoPoren Block
- A large lightweight Concrete Building Block.
- 2 S-Protect WS205 Silane European silane sealer with water repellent and stability properties.
- 3 Poren Plaster 4/5 mm Mineral plaster with good adhesion properties, water retention agents and machine application properties.
- 4 Plus: Sto European Mesh 4/7mm Easy to install, meets the highest requirements for crack, stress and alkalinity resistance.
- 5 StoPlex W Sealer Sto consolidating primer with siloxane additives. Deep penetration for adhesion with absorbency regulating and water repellent properties.
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## **StoLit: Coloured Finishing Renders**

Provide your facade with optimum protection

## The Perfect Finish: Competence in Colour

Give your facade the look it deserves

The Sto Spectrometer Colour System can match virtually any colour with accuracy.



StoLit: Organic Coloured Finishing Render StoLit organic finishing renders are manufactured in Europe and certified around the world. Using the latest technology, they ave been successfully used on a variety of different substrates for over 50 years. The perfect combination of properties: durable, strong, hard wearing, impact resistant, malleable, weather resistant, colour stable and highly resistant to micro-organism. They are designed with good vapour permeability to allow the building to breathe while still repelling liquid water. All renders are easy to apply and can be tinted from the StoColor System or matched to the colour of your choice, using the Sto spectrometer system. Whichever finishing render is chosen, it is part of a tested and approved system providing optimum protection and durability.

















StoLit K 3.0mm



### StoColor Maxicryl Facade Paint European manufactured and

certified, hard, durable, matt, acrylic facade paint for a natural look. Available in a full range of colours.



StoLastic Color Facade Paint European manufactured and certified, elastic, durable, dirt resistant and vapour permeable satin matt facade paint for added durability. Available in a full range of colours.

#### StoLotusan Color Facade Paint

European manufactured and certified, self cleaning mineral silicone resin paint with a breathable structure in a full range of colours.







The use of colour in a manner which complements the architecture requires specific planning.





### The StoColor System

The StoColor System offers a total of 800 colours which establish a sound foundation for creative colour concepts. It is based primarily on the colours, yellow, orange, red, violet, blue and green. These six colours are then mixed to form the 24 basic tones which correspond to the 24 basic tones which correspond to the 24-part colour wheel. This ensures the StoColor System's high degree of functionality

The Sto Spectrometer Colour System can match virtually any colour with accuracy.

# sto

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