

# SPECIALIZED POWAFLEX ACRYLIC SYSTEM ON JAMES HARDIE AXON™ PANEL SMOOTH SPECIFICATION



## Powaflex

ACRYLIC PLASTER SYSTEM



### Project details

Project Name:

Project Address:

Specification Prepared For:

Specifier's Name:

Date:

Certified Specialized Plastering Contractor:

Licensed Building Practitioner Number:

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#### Technical Assistance

Assistance and information are available by calling Specialized Construction Products on (09) 414 4499 or 0800 800 79 or by e-mail at [info@specialized.co.nz](mailto:info@specialized.co.nz).

### Introduction

This specification is for the application of Specialized Construction Products Powaflex Acrylic System over James Hardie Axon™ Panel Smooth. This system is made up of the 9mm James Hardie Axon™ Panel Smooth Fibre Cement Sheets that are fixed to timber or steel framing over the surface over a 20mm cavity. The James Hardie Axon™ Panel Smooth is then over-coated and reinforced with two alternate layers of fibreglass mesh embedded in Powaflex acrylic plaster before the walls are finished with a chosen Specialized/Dulux Acratex acrylic finishing plaster and painted with Dulux Acratex 955 Acrashield Advance paint system.

Powaflex plaster is a ready-to-use, fibre reinforced, polymer-bound base coat that can be easily applied over properly prepared substrates prior to a selected Specialized or Dulux Acratex acrylic finishing texture being applied. The Specialized/Dulux Acratex range of acrylic texture finishes are final coats that can be applied to achieve a wide range of decorative finishes for internal and external areas.



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## Pre-Plastering Requirements

The James Hardie Axon™ Panel Smooth Fibre Cement Sheet substrate must be a minimum of 9mm thick and must be installed in strict accordance with the manufacturer's specifications and recommended installation procedures. Failing to follow the manufacturers fixing specifications can lead to excess movement and cracking after the substrate has been plastered. The finished appearance of the James Hardie Axon™ Panel Smooth Fibre Cement cladding is highly dependent on the standard of the wall construction.

This system must not be used in situations where water may pond. A minimum slope of 10° is required on all sills and copings. It is critical that pipes are flashed appropriately in accordance with E2 fig 68.

All pipes must have a downward rake of a minimum of 5° and must be sealed in place using MS Sealant or another approved equivalent both before plastering and after the installation of the Powaflex plaster system.

Construction Joints must be provided according to the sheet manufacturers design criteria. All construction joints must be in place and must be weatherproof prior to the commencement of plastering.

## Surface Preparation

All nibs and protrusions on the surface of the sheets or irregularities must be ground off prior to plastering. All surfaces to receive an application of the Specialized Powaflex Acrylic System must be clean and free of debris, dirt and dust, efflorescence, grease, oils, curing agents, cleaning solutions, mould and algae or any other contaminants that may affect adhesion. Painted or glossy surfaces must be specially treated prior to the application of any plaster material, please refer to Specialized Construction Products for specialist advice before you proceed. All cracks that may be the subject to ongoing movement must be correctly repaired and reinforced.

Tilt slab and other precast concrete items should be chemically cleaned with a water blaster to ensure any mould release agents are removed before the plaster is applied. Failing to correctly prepare and seal the substrate may cause delamination, chalking or failure in the base coat. Do not wet down the surface of the Axon™ Panel Smooth Fibre Cement Sheet before plastering and do not apply Powaflex to surfaces that are wet from rain or overnight dew.

## Safety Precautions

Avoid contact with eyes and prolonged contact with skin. Wash thoroughly after handling all wet or dry plaster materials. In case of eye contact, flush immediately with running water for at least 15 minutes. Consult a physician immediately. Do not take internally. The potential irritant nature of the plaster dust (in dry powder form or from subsequent cutting of the hardened product) is recognised. Paper dust masks or a respirator must be worn at all times when the product is being mixed. Be sure to provide adequate ventilation when working in enclosed areas. Prolonged skin contact should be avoided. People with sensitive skin must wear rubber gloves when handling the product. Materials Safety Data Sheets are available on request.

## Materials Application

On-site applications are beyond the control of Specialized Construction Products. Therefore, it cannot guarantee workmanship, supervision, aesthetic quality or the correct preparation and application of its products or the substrates to which its products may be applied.

## Sealing The Axon Smooth Panel Smooth Fibre Cement Sheet

Prior to plastering the Axon™ Panel Smooth Fibre Cement Sheet must be sealed with Dulux Acratex AcraPrime WB.

## Joint Plastering

Axon™ Panel Smooth Fibre Cement Sheet joints must be reinforced with mesh.

Axon™ Panel Smooth Fibre Cement Sheet slip joints must be reinforced with 100mm Crack Repair Mesh laid in Specialized Tankit.

Axon™ Panel Smooth Fibre Cement Sheet rebated joints must be reinforced with a 75mm bandage of mesh laid in Powaflex plaster. Thickness is critical - a minimum thickness of 2-3mm of Powaflex must be placed in the rebated Axon™ Panel Smooth Fibre Cement Sheet joints. Do not force the 75mm mesh hard down onto the surface of the substrate.



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## Base Coat Plastering

Once the joint plastering has sufficiently cured a subsequent layer of 160gram alkali resistant fibreglass mesh is laid in Powaflex plaster over the entire wall. Thickness is critical - a minimum thickness of 2-3mm of Powaflex must be used. The mesh is best to be "grinning" through with plaster. Once the second mesh coat has cured the substrate is ready to receive the chosen Specialized or Dulux Acratex acrylic finishing plaster.

Powaflex is to be used only as "Thin-Layer-System" with a nominal thickness of 2-3mm.

The instructions for mixing Powaflex and the subsequent acrylic finishing plasters are clearly spelt out on the labels on the bag/bucket.

The air temperature and the temperature of the substrate and the plaster itself must be higher than +5°C during processing and setting. While it is curing all finishing work must be protected from direct solar radiation, rain or strong wind (e.g. scaffolding protection net). High temperatures during summer will seriously shorten the working and drying time of the product. It is important that each mix of plaster stand for approximately 5 minutes and is then re-stirred, and the final consistency adjusted. This allows the thickening agents in the plaster to take effect and stops the brew from becoming too thick too quickly. Do not use plaster that has been mixed for more than one hour. The plaster will continue to stiffen slightly over the hour.

## Acrylic Texture Finishing Options

Below are the options once the Powaflex Base Coat has been applied and cured:

**Option 1:** Acratex 951 Coventry Coarse Acrylic Texture - 15L

**Option 2:** Acratex 951 1mm Super Trowel Acrylic Texture - 15L

**Option 3:** Acratex 951 Sienna Coarse Sand Finish Acrylic Texture - 15L

**Option 4:** Acratex 951 Sienna Natural Acrylic Texture - 15L

**Option 5:** Specialized FlexiFloat - 20kg (This product is a bagged texture and not tintable)

**Option 6:** Specialized FlexiFlat -20kg (This product is a bagged texture and not tintable)

The ready to use, acrylic textures which when polished flat achieve a granular finish. Smooth plasters will not cover up the background imperfections, particularly when walls are subject to side lighting at certain times of the day.

## Curing

The curing time of finishing plaster will vary due to ambient temperature, relative humidity, surface temperature, surface porosity, application methods, and/or the thickness of the material. All freshly applied material must be protected from inclement weather for a minimum of 24 hours after application. It is the responsibility of the plaster applicator to determine if the product is cured and/or dry prior to applying any additional coats that may be required or exposing the applied product to rain, snow, dew, and/or any other inclement weather condition that may have a detrimental effect. To use, acrylic textures which when polished flat achieve a granular finish. Smooth plasters will not cover up the background imperfections, particularly when walls are subject to side lighting at certain times of the day.

## Painting

The specified paint system must be used over the Specialized and Dulux Acratex finishing plasters to make the system weathertight and give the desired finish colour to exterior walls.

Dulux Acratex Acrashield Advance is a 100% acrylic-based paint that has been specially formulated for use over cement-based and acrylic plasters, it can be tinted to a selected colour and should be applied by brush and roller at a spread rate of approximately 6m<sup>2</sup>/litre.

All acrylic based plastered surfaces must be coated with 2 coats of Dulux Acratex Acrashield Advance tinted to the selected colour and applied by brush and roller at a spread rate of approximately 6m<sup>2</sup>/litre.

Dulux Acratex Acrashield Advance is an exterior paint system complying with all of Parts 7, 8, 9 or 10 of AS 3730 may be used. The paint system must be applied in accordance with the paint manufacturer's instructions.

Other paint systems are not covered by this specification sheet and Specialized Construction Products will not warrant the use or suitability of alternative paint systems over the surface of its plaster finishes.

**The chosen paint system must have a Light Reflective Value (LRV) of no less than 40.**

## Plaster Site Storage

Products in dry form must be stored in a dry area, off the floor on a timber pallet or timber dunnage and must be protected from the weather and from mechanical damage. Stock must be rotated to ensure that the oldest material is used first. Plaster stock that is older than six months must be discarded. EPS battens, uPVC flashings and profiles must be protected from direct sunlight and physical damage. They should be stored flat and under cover. Liquid components must be stored in a frost-free area.



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## Limitations

**DO NOT** apply plaster when the ambient or surface temperature is below 4°C or above 30°C or will be in that range for the 24-hour period after application. When hot, dry, or windy conditions exist, moist curing and protection must be provided. Material that is allowed to freeze or material that dries too quickly may suffer irreparable damage.

**DO NOT** add any other materials to the plasters used with the system or deviate from the mixing or application procedures outlined in any of Specialized Construction Product's technical data sheets without written approval from Specialized Constructions Products.

**DO NOT** apply any plaster material unless the substrate has been properly cleaned and prepared.

**DO NOT** add any more water than prescribed by the technical data sheet for the individual products.

**DO NOT** wet the wall prior to the application of any plaster.

**DO NOT** reactivate any plaster with more water once it has begun to set.

**DO NOT** mix more plaster than you can use in 45 minutes.

**NOTE:** Failure to follow the manufacturer's written specifications could result in the following but not limited to spalling, cracking, peeling, chipping, delamination, discoloration, wash off, and overall system failure.

## Maintenance

Any paint film damage must be repaired as soon as possible to prevent water penetration and ensure that the high strength properties of the fibreglass mesh are maintained. Any impact damaged areas must be thoroughly cleared of any loose material and repaired with a 1:1 mixture of resin and water mixed with the required amount of Powaflex plaster. This will ensure a positive bond between the original plaster and the repaired area. Repaint within the following week.

The wall cladding system should be regularly cleaned, at least annually, by washing with clean water to remove dirt and to maintain the finish appearance. Grime may be removed with warm water and detergent. Plastered walls should be recoated with an approved paint system at 7 to 10 yearly intervals or sooner if required to maintain weathertightness. Regular checks, at least annually, must be made of the system to ensure that the weather resistant coating is maintained watertight, and that the sealant, flashings, and other joints continue to perform their function and do not allow water to penetrate. Failure to correctly maintain the system may void any long-term warranties offered with the system. Any accidental damage to the cladding must be repaired immediately using Specialized Construction Products materials. For further information with regard to maintaining and cleaning the Specialized Construction Products Powaflex Acrylic System please refer to Specialized Plaster Maintenance Guide.

## Warranty

The recommendations, suggestions, statements, and technical data provided by Specialized Construction Products are based on the best current knowledge available and are given for information purposes only without any responsibility for their use. It is expressly understood and agreed that the buyer's sole and exclusive remedy shall be the replacement of defective products, and under no circumstance, shall Specialized Construction Products be liable for incidental or consequential damages. Specialized Construction Products neither assumes, nor authorizes, any others to assume for it any liability with respect to furnishing of the product. Handling and use of the products are beyond the control of Specialized Construction Products; therefore, no warranty is made, expressed or implied, as to the results or on-site quality that can be obtained from the use of the product.

### System Guarantee Period

15 years from date of practical completion

### Workmanship Guarantee Period

5 years from date of practical completion to plastering.

## Technical Assistance

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