Specialized Fibre Cement Sheet Repair Specification

1. Introduction

This specification is for the application of Specialized Construction Products (SCP) Powaflex crack repair system for use over the surface of an existing, plastered, 7.5mm/9mm fibre-cement sheet system. The Powaflex plaster system has been specially developed by Specialized Construction Products as a semi-flexible remedial system to repair and refurbish previously damaged plastered exteriors.
Powaflex plaster is a ready-to-use, fibre reinforced, polymer bound base coat that can be easily applied over properly prepared plaster prior to a selected SCP/Dulux Acratex acrylic finishing plaster being applied. the Acratex range of acrylic textures finishes are ready to use, pasty, synthetic resin final coating plasters that can be applied to achieve a wide range of substrates for internal and external areas.

2. Health & Safety

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 with the wet compound should be avoided. People with sensitive skin must wear rubber gloves when handling the product. Materials Safety Data Sheets are available on request.

3. Pre-Plastering Requirements

The fibre-cement backing substrate must have been installed in strict accordance with the manufacturer's specifications and recommended installation procedures including 'cutting to waste' around penetrations, and all the edges of the fibre-cement must be well supported. All the flashings used with the fibre-cement system should be checked for damage prior to plastering. The finished appearance of the wall is highly dependent on the standard of the wall construction underneath.
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 an appropriate MS Sealant both before plastering and after the installation of the acrylic finishing textures.
Construction Joints must be provided according to NZS3604 for fibre-cement linings design criteria. All construction joints must be in place and must be waterproof prior to the commencement of plastering.
Construction Joints must be provided according to the brick/block manufacturers design criteria. All construction joints must be in place and must be waterproof prior to the commencement of plastering.

4. Surface Preparation

All nibs, protrusions, damage, and excess mortar on the surface of the fibre-cement or irregularities in the slab must be ground off prior to plastering. In some instances, it will be necessary to waterproof or key coat the existing surface prior to the application of the mesh and plaster system (i.e. the surface is too 'shiny' or the existing paint/plaster system is in poor condition and has been removed by mechanical means). In such instances Specialized Construction Products recommend the use of the Tankit key coat and waterproofing system. Tankit can be easily applied over a variety of properly prepared concrete and fibre- cement backgrounds using traditional painting techniques.
All hollows in the existing fibre-cement that are less than 5mm deep, or areas that are heavily textured should be screeded with a coat of Powaflex prior to the application of any additional plaster. In some areas it may also be necessary to pre-fill or 'stop' the fibre cement sheets so that they are level with existing areas of repair. Either Powaflex or Flexiplast plaster can be used for this application.
All surfaces to receive an application of any of Specialized's acrylic plasters 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. All cracks that may be the subject to ongoing movement must be correctly repaired and reinforced with a speciality alkali-resistant fibreglass mesh bandage embedded in Tankit plaster. Failing to correctly prepare the substrate may cause delamination, chalking or failure in the base coat.
Some smooth, dense concrete surfaces such as poured insitu concrete must be slush coated before application of any plaster to ensure a suitable bond is created, please refer to Specialized Construction Products for specialist advice before you proceed. Tilt slab and other precast concrete items should be cleaned with Dulux Acratex 400/4 Tiltwash to ensure any mould or release agents
are removed before the plaster is applied. All joinery must be installed with air seals to comply with the manufacturer's technical details. All sill rebates must have a minimum fall of 15 degrees.

Do not wet down masonry surfaces before plastering and do not apply Powaflex plaster to surfaces that are wet from rain or overnight dew.

5. Materials Application

On-site application is 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.

6. Repair Bandages & External Corners

Any areas in the existing fibre-cement that have cracked since the product was first erected must be properly ground and reinforced with proprietary mesh bandages embedded in SCP Tankit prior to the application of the Powaflex mesh coat. All exterior galvanised angles must be removed from the existing fibre-cement and replaced with external PVC angles.
All premeshed PVC corners should be embedded in Powaflex plaster. Thickness is critical - a minimum thickness of 2mm must be achieved with this plaster. Do not force the mesh hard down onto the surface of the substrate. The mesh pattern should be "grinning" through, but the mesh itself completely covered with plaster. Once all the corners have been straightened and all

existing cracks have been bandaged, the dwelling will be ready for its Powaflex mesh coat.

7. Mesh Coating

Once all penetrations and awkward areas have been reinforced with mesh all the flat areas of wall should be done using a 160g/m2 alkali resistant hard mesh embedded in Powaflex plaster. Drops of hard mesh do not have to overlap but should be tightly butted together and must offset any joint in the substrate by a minimum of 50mm. At the corners of all openings, a second layer of mesh 100 x 200mm (butterfly) must be applied and embedded in the mesh coat plaster on the diagonal to reduce the chance of any subsequent cracking at these high stress points.
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 Acratex acrylic finishing textures 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 finished 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 Powaflex stands 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 material 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.

8. Curing

The curing time of SCP’s plaster finishes 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.

9. Finishing Plasters Options

- Acratex 951 Coventry Coarse Acrylic Texture - 15L
- Acratex 951 1mm Super Trowel Acrylic Texture - 15L
- Acratex 951 Sienna Coarse Sand Finish Acrylic Texture - 15L
- Acratex 951 Sienna Natural Acrylic Texture - 15L
- Specialized FlexiFloat - 20kg (This product is a bagged texture and not tintable)
- Specialized FlexiFlat -20kg (This product is a bagged texture and not tintable)

10. Painting

Once the plaster system is complete and has fully cured it must be coated with 2 coats of Dulux Acratex 955 Acrashield Advance acrylic exterior paint. The paint system complies with all parts of 7, 8, 9 or 10 of AS3730. Other paint systems are not covered by this specification sheet and

Specialized Construction Products will therefore 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%.

11. Cleaning

Cleaning may be accomplished with water immediately after use. Clean the whisk and the bucket between mixes and discard the cleaning water. Remove splatter or spills with water before the material sets.

12. Plaster Storage

In bagged form this product must be stored in a dry area, off the floor on a timber pallet or timber dunnage and it must be protected from the weather and from mechanical damage. Rotate the stock to ensure that the oldest material is used first. Plaster stock that is older than six months should be discarded.

13. Limitations

DO NOT apply the system when the ambient or surface temperature is below 5ºC or above 30ºC or will be in that range for the 24-hour period after application. Material that is allowed to freeze or material that dries too quickly may suffer irreparable damage.
DO NOT add any other materials to the Powaflex base coat or acrylic finishes and do not 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 the system unless the substrate has been properly cleaned and prepared. See Surface Preparation above.
DO NOT add any more water than prescribed by the technical data sheet for the products used in this system.
DO NOT wet the wall prior to the application of this material. DO NOT mix more plaster than you can use in 45 minutes. NOTE:

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

14. Maintenance

The wall cladding system applied over the Tankit should be 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 Dulux Acratex 955 Acrashield Advance paint system at 5 to 8 yearly intervals or sooner if required to maintain watertightness.
Regular checks, at least annually, must be made of the system to ensure that the weather resistant surface coating is maintained, 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.

15. 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 – 10 years from date of practical completion

Workmanship guarantee period – 5 years from date of practical completion

Technical assistance and information is available by calling Specialized Construction Products at (09) 414 4499 or by e-mail at "info@specialized.co.nz".