

CAVITECLAD™

EXTERIOR PLASTERWORK SPECIFICATIONS AND DESIGN SOLUTIONS

CAVITECLAD INSTALLATION GUIDE



Project Details

Project Name:

Project Address:

Specification Prepared For:

Specifier's Name:

Date:

Certified Specialized Plastering Contractor:

Licensed Building Practitioner Number:

Contact Us

Specialized Construction Products Ltd

Auckland Branch

79 Porana Rd, Glenfield
Ph: + 64 9 414 4499

Christchurch Branch

178b Carlyle Rd, Sydenham
Ph: + 64 3 365 3202

Tauranga Branch

90a Maleme St, Greerton
Ph: 07 541 3384

info@specialized.co.nz

www.specialized.co.nz

Introduction

The Caviteclad *Exterior Insulation and Finishing System (EIFS)* is an exterior wall system made up of polystyrene sheets of 50mm fixed to timber or steel framing. Caviteclad can also be used to reclad over existing weatherboards and the polystyrene sheets can also be bonded or mechanically fixed to concrete or masonry walls (Note: These applications are outside the scope of the BRANZ Appraisal). Once the building is closed in or sheathed with the polystyrene, the sheets are coated with a polymer modified plaster reinforced with fibreglass mesh. When the mesh coat has dried, the wall is then finished with a second coat of plaster and painted with a 100% acrylic paint system.

For reasons of clarity this Installation Guide only refers to expanded polystyrene (EPS). All polystyrene must meet the requirements of AS 1366 part 3.



All the uPVC flashings, fibreglass mesh, resin and plaster components used for the Caviteclad System must be supplied by Specialized Construction Products Ltd.

The Caviteclad System has been tested and appraised for use throughout New Zealand. Branz Appraisal No. 510 (2019).

This Manual has been set out as near as possible to the actual construction sequence. Preparation, fixing the polystyrene to various types of framing and backgrounds, sealing the joinery and masking out, preparation of polystyrene prior to plastering and finally the plaster techniques and sequences. This guide must be read in conjunction with the detail data sheets for the Caviteclad System.

Framing Set Out (Timber or Steel)

Timber framing must comply with NZS3604 for buildings or parts of buildings within the scope limitations of NZS 3604. Buildings or parts of buildings outside the scope of NZS3604 must be to a specific design in accordance with NZS 3603 and NZS 4203. In all cases studs must be set out at 600mm maximum centres. Dwangs/nogs must be flush fitted at maximum 800mm centres. Edge fixing for the polystyrene sheets must be provided. Check that all soffit junctions, openings, wall/roof junctions and foundation details have support for the sheet edges. Timber framing must have a maximum moisture content of 24% at the time cladding commences.

For steel framing the minimum framing specification is 'C' section studs and nogs of overall section size 75mm web and 32mm flange. Steel thickness must be a minimum of 0.55mm

Building Wrap

A paper wrap complying with NZBC Acceptable Solution E2/AS1 Table 23, or breather-type membranes covered by a valid BRANZ appraisal must be used in all circumstances. Building wrap must be installed horizontally and be continuous around corners. The wrap must be lapped 75 mm minimum at horizontal joints and 150 mm minimum over studs at vertical joints. Where studs are at greater than 450 mm centres, polypropylene strap or additional vertical cavity battens must be

installed at maximum 300 mm centres to prevent bulk insulation bulging into the cavity. Flexible sill and jamb flashing tapes complying with NZBC Acceptable Solution E2/AS1, paragraph 4.3.11 or flexible sill and jamb flashing tapes covered by a valid BRANZ appraisal must be used around all penetrations. All penetrations must have internal air seals applied.

Head Flashings

Proprietary head flashings with minimum ventilation openings of 1000mm² per lineal metre must be installed over all window heads and door openings. If proprietary head flashings can not be used, an acceptable alternative flashing must be provided. Please contact Specialized Construction Products Ltd for advice.

Flashings In General

Joists designed to carry decks need to have a continuous flashing fitted before the polystyrene is fixed. Check if there are any special back-flashings required where the Caviteclad joins another substrate or curtain wall construction.

Roofing

Where areas over roofs need to be plastered, the roof/wall flashing must be installed prior to the commencement of cladding.

Pipes & Meter Boxes

It is critical that pipes are flashed appropriately in accordance with E2 fig 68. All pipes must have the building paper turned to the outside of the building and have the building paper taped to the outside of the pipe. Alternatively a lead flashing or similar should be fitted. All pipes must have a downward rake of a minimum of 5° and must be sealed in place using MS Silaflex or another approved equivalent both before plastering and after the installation of the Caviteclad base coat.

All meter boxes must be installed according to the detailed drawings provided with the Caviteclad system. A polystyrene wedge must be placed and sealed with a waterproofing membrane onto the top of the meter box and must be able to drain water unimpeded into the cavity behind the cladding.

Particular attention to detail and workmanship must be given to the weatherproofing details contained in the technical literature relating to flashing and sealing building penetrations or junctions with other building materials. All junctions between the Caviteclad substrate and dissimilar materials must be correctly flashed and sealed with MS Silaflex or another approved equivalent. The MS sealant must be installed in strict accordance with the manufacturer's requirements and must be left to properly cure prior to plastering.

Scaffolding

Don't accept second best. You need a continuous freestanding scaffold at least 300mm clear of the framing. Movable frames can be used, but you need enough to complete one whole wall at one time.

Site Storage

Products in dry form 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. EPS sheets, 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.

Preparation of Masonry & Concrete Surfaces

(Note: This application is outside the scope of the BRANZ Appraisal.)

All nibs, protrusions and excess mortar on the surface of the bricks/blocks or irregularities in the slab must be ground off prior to plastering.

All solid substrates to receive an application of the Caviteclad 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.

Some smooth, dense concrete surfaces must be slush coated before the application of the polystyrene bonding plaster to ensure suitable adhesion is created, please refer to Specialized Construction Products for specialist advice before you proceed. 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. All very porous surfaces should be sealed with an appropriate paint sealer prior to the application of the bonding plaster. Failing to correctly prepare the masonry substrate, may affect the aesthetic appearance of the finished wall.

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

Fitting Caviteclade Battens

Caviteclad battens manufactured from high density (Class H) expanded polystyrene with an approximate density of 24kg/m³ and measuring 21mm x 45mm must be fixed to the framing with nails/staples or an appropriate polystyrene compatible adhesive in accordance with the batten layout shown in the detail data sheets.

Additional vertical battens are required at internal and external corners and openings. At the soffit the airflow must be blocked off and gables must be lined or incorporate an air barrier which meets the requirements of NZBC Acceptable Solution E2/AS1, Table 23. Non-rigid air barriers must have an air resistance of $\geq 0.1 \text{ MN s/m}^3$. Where rigid sheathings are used, the fixing length must be increased by a minimum of the thickness of the sheathing. Horizontal battens must be a maximum length of 100mm long in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.2(f) and must be stapled or adhered into place on all noggins/dwangs where required for fixings with a minimum of a 5 degree angle on the top edge. The fewer

horizontal battens that are used the better.

Fitting Sill & Jamb Flashings

The use of the Caviteclad uPVC sill and uPVC Jamb flashings are **MANDATORY**. It is also **MANDATORY** that the sill and jamb flashings are joined in the corner with a 50mm Specialized Construction Products corner socket.

Installing the Specialized uPVC flashing kit with Cavity Jamb Flashings

Begin by marking and cutting your sill flashing so that it extends approximately 4-5mm past either end of the aluminium joinery (i.e., overall, approximately 8-10mm wider than the window). Once the sill is cut, wipe the left-hand end with uPVC solvent welding cement and slide it onto the prongs of the corner socket. Next wipe the right-hand end with uPVC solvent welding cement and slide on the right-hand corner socket. Slide the sill and socket combo into place under the window flange and staple it into place at the corner socket. Next cut your jamb flashings 25mm longer than the length of the window and cut the capillary lip off the top so that the top edge of the capillary lip will finish flush with the top of the joinery when it is slid into place (i.e., overall, the jamb should protrude approximately 40mm above the top of the window). Once the jambs have been cut and test fitted, choose one side, and wipe the top of the corner socket with uPVC solvent welding cement. Immediately tuck the capillary lip of the jamb flashing behind the flange of the joinery and slide the jamb down into place onto the top of the socket and then repeat the same set of instructions for the other side. When the jambs are in place, cut your head flashing approximately 6mm wider than the joinery. Remove tape from head flashing adhesive strip and install to joinery head, staple rubber back to building wrap. Using MAXILAM MS Sealant, seal the ends of the head flashing to the jamb flashing. Install head flashing tape over the head flashing building wrap junction and extend the tape on to jamb flashing on either side to form a stop end. Ensure the head flashing tape laps on to the jamb flashings by 40mm to form an adequate stop end.

Once all the flashings are in place seal the jamb flashing to the joinery in the 5mm gap provided by the small block on the jamb flashing and then seal the corner socket to sill flashing. You must also run a bead of sealant along under the joinery to seal the vulnerable gap where the sill flashing meets the joinery. Where joinery weep holes are on the bottom of the joinery rather than the front, do not seal to the sill where the weep holes are situated. (i.e., leave a 20mm gap in the sealant).

(When installing the female portion of the head flashing, ensure you seal the junction between the two flashings after installed and before plastering and painting).

Installing the Specialized uPVC flashing kit with Sticky Jamb Flashings

Begin by marking and cutting your sill flashing so that it extends approximately 4-5mm past either end of the aluminium joinery (i.e., overall, approximately 8-10mm wider than the window). Once the sill is cut, wipe the left-hand end with uPVC solvent welding cement and slide it onto the prongs of the corner socket. Next wipe the right-hand end with uPVC solvent welding cement and slide on the right-hand corner socket. Next cut your sticky jamb flashings 25mm longer than the length of the window and cut the capillary lip off the top so that the top edge of the capillary lip will finish flush with the top of the joinery when it is slid into place (i.e., overall, the sticky jamb should protrude approximately 40mm above the top of the window). Once the sticky jambs have been cut and test fitted, choose one side and remove the sticky cover tape. Immediately tuck the capillary lip of the jamb flashing behind the flange of the joinery and install the sticky jamb flashing with the bottom starting 15mm up from the bottom of the joinery and then repeat the same set of instructions for the other side. Next wipe uPVC solvent welding cement on both spikes of the corner socket of the sill and socket combo and slide the spikes into the bottom of the sticky jamb flashings thus installing the sill and corner socket combo into position under the window flange sill.

When the sticky jambs and sills are in place,

cut your head flashing approximately 6mm wider than the joinery. Remove tape from head flashing adhesive strip and install to joinery head, staple rubber back to building wrap. Install an EZpanel batten to the side of the sticky jamb flashing to provide support for forming a stop end. Using MAXILAM MS Sealant, seal the ends of the head flashing to the sticky jamb flashing. Install head flashing tape over the head flashing building wrap junction and extend the tape on to the sticky jamb flashing on either side to form a stop end. Ensure the head flashing tape laps on to the sticky jamb flashings by a 40mm to form an adequate stop end.

Once all the flashings are in place seal the jamb flashing to the joinery in the 5mm gap provided by the small block on the jamb flashing and then seal the corner socket to sill flashing. You must also run a bead of sealant along under the joinery to seal the vulnerable gap where the sill flashing meets the joinery. Where joinery weep holes are on the bottom of the joinery rather than the front, do not seal to the sill where the weep holes are situated. (I.e., leave a 20mm gap in the sealant).

Sealing around windows is one of the most critical operations for the success of the Caviteclad system. The data sheets detail in pictorial terms how the instruction above should be carried out. Follow these details implicitly.

Basic principles to apply when sealing your windows:-

1. Don't be mean with your application of sealant. All beads of sealant must be 5mm across.
2. The sealant has to have a reasonable area to seal against and be installed over a bond breaker.
3. Always lightly tool or spread your sealant into place with your finger.

Soffits

Soffits shall be fixed into place before the cladding is installed and allowance made to close off the cavity with framing or battens

to stop airflow into the roof space. A 5mm bead of MS sealant should be installed at the soffit polystyrene intersection after the EPS is put in place and before plastering commence. In the case of reverse raking soffits or soffits less than 450mm wide a flashing or piece of Protecto EIFS tape shall be provided in accordance with the details shown in the technical literature.

Fixing The Polystyrene Sheets

The sheets are butt jointed except at corners where one sheet overlaps the other to form a straight finish. Horizontal sheet edges must be supported at fixing locations with cavity spacers a maximum of 100mm long in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.2(f). At the base of walls the finished level of the polystyrene must be at least 50mm below the supporting framing. Additional framing will be required at soffits, internal and external corners and window and door openings for the support and fixing of sheet edges.

All sheet joints and edges must be supported. The only exception to this rule is at the base where the sheets can hang 50mm below the supporting frame.

All the cutting tools you use need to be sharp and kept sharp. Construction joints are needed in walls longer than 20 metres or higher than two stories. This doesn't apply to two storeyed houses with a gable end. Construction joint details are provided in the drawings provided with the system. Inter-storey drained joints must be provided for walls over 2 storeys in height in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.1.9.4(b). Inter-storey junctions must be constructed in accordance with the technical literature.

All gaps between the EPS sheets must be flush filled with adhesive spray foam prior to the base coat plaster being applied.

When polystyrene is left unplastered for a period of time, the surface goes yellow and chalky. This must be removed with a stiff broom and water and then the cleaned surface must be scratched to provide a key for the plaster. In the summer season,

this yellowing or oxidising can occur in less than a week. Beware of the problem. If you can get a chalk deposit on your hand after rubbing the surface of the polystyrene it must be cleaned down.

Timber Framing

There are four categories listed in NZS 3604: Low, Medium, High and Very High. The "Building Wind Zone" for the job to be completed must be clearly understood before the application of any plaster.

Polystyrene sheets are fixed through the cavity battens and spacers to the studs with Specialized Construction Products Ltd "polyfasteners".

Refer to the table below for fixing centres.

Around Openings: Nail at 150mm to 200mm maximum centres around all windows and doors. This ensures any possible movement between the joinery frame and the finished Caviteclad is greatly reduced.

Wind Zone NZS 3604	Sheet fixings centres for edges and intermediate studs
Low	300
Medium	300
High	300
Very High	200

1. One fixing is required into each dwang and top and bottom plates at mid-dwang length.
2. Fixings are also required into each dwang at 200 mm centres and top and bottom plates at mid-dwang length.

Steel Framing

The same fixing centres apply as for timber framing. Use Specialized Construction Products Ltd 42mm "polyfasteners" and self-drilling AS 3566 Corrosion Class 3 6-gauge screws in mild or moderate industrial or marine environments and Corrosion Class 4, 6-gauge screws in severe marine environments. The screw length must allow a 10 mm minimum penetration through the steel framing.

Concrete & Masonry

(Note: This application is outside the scope of the BRANZ Appraisal.)

Having prepared the surface, it must be decided whether to bond the sheets (clean unpainted surface), or use the masonry screws topped with 40mm washers (painted wall surface).

The masonry screws and washers are used at the same centres as the nails.

Cut and check the sheet fits, hold in place and drill 8mm holes with a masonry drill and then screw into place. Note: close up fixing centres around openings.

To bond polystyrene to masonry surfaces mix up Specialized Construction Products fine base coat plaster with the addition of 1 litre of Specialized Construction Products resin per bag. Cut the polystyrene to size and check the fit.

Note: When bonding sheets they are very hard to handle, so don't fix sheets bigger than 1.2 x 1.2m. Apply the fine base coat plaster to the back of the sheet with a grooved trowel around the perimeter and in vertical strips every 400mm.

DON'T APPLY PLASTER TO THE WALL FIRST AND THEN TRY AND BOND THE SHEETS.

The plaster "sucks off" and the polystyrene won't stick. Use a few masonry screws to ensure sheets stay in place while the bonding plaster sets. Bed each sheet back against the wall, keeping a check that the sheets are flat by using a straight edge across their face. To ensure no thermal bridges are formed keep all the edges closely butted and clear of adhesive plaster.

Finishing The Polystyrene

Around the base of the building ensure all lines are straight and level. Trim and adjust where necessary.

Use a two metre straight edge and check the flatness of the polystyrene surfaces. Use a one metre long sanding block to sand off any large irregularities and make the polystyrene surfaces level and the

corners and edges straight. When sanding is complete, sweep the walls clean of polystyrene swarf.

Only once you are satisfied with the flatness of the polystyrene and the lines of the edges, fix any additional PVC beading (i.e. PVC corners and base U-channels) and seal around the perimeter (ie. under the soffit).

Fixing The PVC Beads

All exposed polystyrene corners and bottom edges must be protected by gluing on the appropriate uPVC section. Your detail drawings show what bead goes where.

The beads are glued on with Maxilam PS Adhesive. Apply glue to all contact surfaces. With the cartridge glue, slide each uPVC bead along the polystyrene edge to spread the glue, pull away slightly for 20 seconds, and then slide into place. This spreading of the glue and allowing a few seconds for the solvents to "flash off" is very important. If you don't, the bead can come unstuck as the small amount of solvent dissolves the polystyrene and destroys the bond. Be careful not to cover the drainage holes punched in the base extrusions with glue.

Once all the PVC beads are fitted, prime the PVC with Tankit Plaster. Make a sloppy mix and paint on. This key coat is very important as it ensures the plaster mix sticks to the PVC.

Masking

Careful masking of windows, doors, roofing, decks and any other areas where plaster overspray or plaster droppings may occur is critical. Don't be mean with your protection work as it is a very costly exercise to replace roof areas and glazing because your masking wasn't up to the job. Use PVC or vinyl tape for masking, wet strength masking paper or preferably plastic sheet material..

1. Mask out windows or doors completely to the edge of the aluminium. This will provide a nice finishing line for the 5mm sealant

detail. Mask all other areas 5mm away from the edge of the polystyrene to allow for plaster build-up. Use PVC or vinyl tape around the perimeter.

2. Don't be tempted to use the paper-backed masking tape where it will get plastered over. The tape softens and falls off.
3. After the mesh/plaster coat or subsequent base coats (not the final texture coat) remove excess plaster by running your finger around the edge masking tape, and then clean the wet plaster edge with a damp paint brush. This ensures the masking tape isn't buried under hard plaster.

Caviteclad Plaster Preparation

The instructions for mixing are clearly spelt out on the bag. **Note:** During summer, you can add one litre of resin per bag to help the plaster cure better in hot weather.

It is important that each mix stands for approximately 10 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 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.

If you are spraying fine base coat plaster to provide a textured finish it is acceptable to add small amounts of water to maintain a regular consistency. In fact if you don't keep the plaster mix adjusted with a little water every now and then, your texture coat will vary. Clean your hopper gun, stirrer and bins between mixes. This will stop you getting contamination in fresh mixes, and will keep your gun spraying evenly.

Stopping up

After the polystyrene has been sanded flat and cleaned down, the uPVC flashings are in place and primed, the windows are sealed, and all the masking is complete, plastering can commence.

Using a hawk and trowel, or broad knife; fill all the nail head holes, stop up and level

out the edges of all PVC beading, and fill in any remaining out of level areas of sheet joints. It is important not to “over-stop” nail holes or joints. Don’t leave thick edges of plaster because they will “grin through” the finished work.

Plaster and Mesh Coat

The areas around all penetrations should be completed first. Make sure the plaster is scraped hard back to the polystyrene on the outer edges of the mesh. Once all the window reveals, parapet tops and backs, and bottom edges have been done using the soft flexible narrow mesh, use the hard stiff mesh to cover the big flat areas of wall.

The first coat or base coat of plaster is usually trowel applied with a long 20” x 4” or 20” x 5” steel trowel. The large trowel ensures the first coat of plaster can’t be squeezed out too thin.

1. Start at the corner of a wall. Check all masking is done and drop cloths are in place. Plaster a full height section of wall about one and a half metres wide (the width of the mesh). You are aiming for 3mm thickness with this first coat.
2. Cut a length (drop) of mesh slightly longer than the wall area to be covered. Place the mesh against the wet plaster at the top of the EZpanel. The outer corner edge of the mesh must be 100 to 200mm past the corner of the wall.
3. Wipe the mesh very lightly at first into the plaster, starting at the middle and working out. Make sure there are no bubbles or wrinkles in the mesh. Once the mesh is flat against the plaster, apply an even trowel pressure and embed the mesh just below the surface of the plaster. Do not force the mesh hard down onto the surface of the EZpanel. The mesh pattern should be “grinning” through, but the mesh itself completely covered with plaster.
4. Apply a 100 to 200mm band of plaster around the corner and embed the overhanging corner mesh. Once embedded scrape away the plaster at

the edge of the mesh to ensure there is no plaster ridge there when you join on later.

5. Repeat the process. Drops of hard mesh do not have to overlap but should be tightly butt joined. If the mesh isn’t going to be overlapped any butt join that is created must offset any vertical join in the panels by a minimum of 150mm. The mesh and plaster coat must cover all EZpanel surfaces including the EZpanel edges around all window reveals and sills.
6. At the corners of all openings, apply a second layer of mesh 100 x 200mm (butterfly) embedded on the diagonal. This greatly reduces the chance of any subsequent cracking at these high stress points.

Finishing Options

There are four options once the first mesh and plaster coat have been applied: -

Option 1: Stucco Texture

Fine base coat plaster can be sprayed through a hopper gun or a sagola gun to achieve a heavy stucco plaster finish.

Each 20kg bag of Fine base coat plaster is mixed with approximately 5 litres of clean drinking water. Place all the water for your plaster mix into a clean bucket and while stirring with a powered whisk, add the 20kg bag of plaster and mix to an even consistency. Let the mix stand for 5 minutes and give it a quick restir before application and adjust the final consistency if it is necessary.

The object is to spray on a “wet” second coat of plaster 1 to 2mm thick that will flow together to form a solid flat looking texture coat. The technique could be likened to spray painting where you move on once you have achieved a “wet” finish. Fine base coat plaster mixed wetter than for a mesh coat, sprayed through a hopper gun with a 9mm tip is best for this type of texture.

Once the first spray coat is starting to “tack-off” or going grey dry, you can start to apply

the final texture coat. The plaster mix for this third and final coat is about the same as for the mesh coat or slightly stiffer and is known as a “flick coat”. The object is to have a plaster mix that won’t run together like the previous coat. Use a 7mm nozzle.

The final texture coat is only meant to be a quick flick. The “flick-coat” will even out any discrepancies and provide a uniform texture finish. You will only use approximately 20% of the amount of plaster you used to do your first coat of spray texture. Spray part of this final texture in horizontal bands and part in vertical bands to ensure a uniform even finish. Do not stay too long in one area, as the texture coat will flow together, causing patchiness.

Always texture the external and internal corners first before doing the adjacent large wall areas. It is also good practice to spray the reveals around windows from the inside out and then fill in the areas of wall between these places.

A stucco spray texture must be finished with two coats of Plastershield100% acrylic paint or an approved latex exterior paint system in accordance with the paint specification.

Option 2: Float Finish

Float Finish is a polymer modified cement based plaster which is polished flat to achieve a fine granular finish. The smooth plaster will not cover up background imperfections, particularly when walls are subject to side lighting at certain times of the day.

Each 20kg bag of Float Finish is mixed with approximately 5 litres of clean drinking water. Place all the water for your plaster mix into a clean bucket and while stirring with a powered whisk, add the 20kg bag of plaster and mix to an even consistency. Let the mix stand for 5 minutes and give it a quick restir before application and adjust the final consistency if it is necessary.

On large walls float finish should be applied by two or more people to ensure a wet edge is maintained. Float finish must be

applied in two coats to ensure an even texture is achieved. Begin by trowelling on one tight coat of the float finish plaster with a large steel trowel using the aggregate in the plaster to establish the thickness. Once the first coat has dried, trowel on another coat of the same material (mixed to a slightly thinner consistency) over its surface. As soon as this coat has been laid down, with the steel trowel flat begin polishing its surface with a hard plastic float in a circular motion. This will cut the surface of the wall flat. Regularly clean the excess plaster off the plastic float with a broad knife to reduce the potential for swirl marks. If the plastic float is picking up too much material or is leaving swirl marks on the surface, this indicates that the plaster has not been laid on tight enough with the steel trowel. Finish with a gentle polish of the surface with the plastic float to minimise any slight swirl marks or surface irregularities. Every now and again stand back a couple of metres from the wall and inspect your work to ensure an even finish is being achieved.

Float finish can either be left as it has been finished with the plastic float or while it is still wet (but firm to touch), normally only 5 minutes after application, it can be polished with a damp sponge to close the pores in the texture. Polishing the surface of the walls with a sponge will also remove a small amount of the fines in the plaster giving the wall a grainy look.

Float Finish must be finished with two coats of Plastershield 100% acrylic paint or an approved latex exterior paint system in accordance with the paint specification

Option 3: Spanish Finish

Spanish Finish is a polymer-modified, cement based plaster used to achieve an undulating adobe style finish. This product can be applied in various thicknesses and using a number of different techniques. Before finish coating begins ensure the style of finish that is desired has been correctly communicated and understood by the plasterer. A trial sample is highly recommended.

Each 20kg bag of Float Finish is mixed with approximately 5 litres of clean drinking

water. Once you have established how much water gives you the consistency you want, maintain this measured amount of water for the rest of your mixes. Place all the water for your plaster mix into a clean bucket and while stirring with a powered whisk, add the 20kg bag of plaster and mix to an even consistency. Let the mix stand for 5 minutes and give it a quick restir before application and adjust the final consistency if it is necessary.

The finished thickness of the Spanish Finish must be between 2 to 10mm.

To achieve an uneven application of the Spanish finish use a short steel trowel and apply the plaster in a random fashion using a good amount pressure. Avoid excessive movement of the

plaster under the trowel once it has been applied to the wall, otherwise you run the risk of delamination. Allow a little time for the plaster to 'suck off' and then polish all the sharp marks out of the surface using a damp sponge.

If a very thick layer of Spanish finish is being applied for a heavy pattern, wiping over the undulations using a wet soft bristled paint brush can help to soften the surface before it is sponged.

Spanish Finish must be finished with two coats of Plastershield 100% acrylic paint or an approved latex exterior paint system in accordance with the paint specification.

Option 4: Baumit GranoporTop 1.5mm Acrylic Texture or GranoporFine 1.0mm Acrylic Texture

(It is recommended to seal the base coat plaster with Baumit Tiefengrund primer before applying Baumit Granopor. Allow to dry for 24 hours).

GGranoporTop 1.5mm Acrylic Texture is a ready to use, synthetic resin-based render which is polished flat to achieve a fine granular finish.

GranoporFine 1.0mm Acrylic Texture is a ready to use, synthetic resin-based render which is polished flat to achieve a fine granular finish or sprayed through a hopper

gun or a sagola gun to achieve a fine stippled appearance. Smooth textures will not cover up background imperfections, particularly when walls are subject to side lighting at certain times of the day.

Granopor is to be mixed thoroughly with a stirrer before application. The consistency can be adjusted by adding a little bit of water. Baumit Granopor is to be applied to the entire surface with a rust-free steel trowel or sprayed on with a suitable plaster machine, levelled to grain thickness and rubbed with a plastic plasterer's float. Do not mix with other substances. Work evenly and without interruption.

Air, material and subsurface temperatures have to be higher than +5 degrees Celsius during processing and setting. Protect façade against direct solar radiation, rain or strong wind (e.g. scaffolding protection net). High temperatures during summer shorten the drying time and can lead to untimely drying out of the plaster.

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 affect. Although some of the finishes contain cement and will not fully cure for 28 days, as long as it is lightly hosed down with fresh water 12 hours prior to painting, it can be painted after the finish coats have cured for a minimum of 3-4 days. Acrylic plaster finishes can be painted as soon as the finished surface has hardened enough for application to take place.

Paint specification

One of the following paint systems must be used over the Caviteclad finishing plasters to make the system weathertight and give the desired finish colour to exterior walls.

Plastershield is a 100% acrylic-based paint that has been specially formulated for use over cement based plasters. Plastered surfaces must be coated with a minimum of 2 coats of Plastershield tinted to the selected colour and applied by brush and roller at a spread rate of approximately 6m²/litre. If a dark colour is being applied, we highly recommend that a coat of lime stop/lime lock is applied to the finished plaster before painting commences.

As an alternative to Plastershield, a latex based exterior paint system complying with any 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 Ltd will not warrant the use or suitability of alternative paint systems over the surface of its plaster finishes.

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 Ltd.

DO NOT apply any plaster 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 material.

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

General

1. Use longer steel trowels rather than short ones. The longer trowel covers the area quicker and gives a flatter finish. A long trowel will stop workers from skimming on plaster, as they are unable to push the mesh back into a thin coat of plaster. This helps quality control.
2. Have plenty of plaster buckets and water buckets on the job. Keep a 3" paint brush and water bucket handy for finishing those narrow edges and corners.
3. When applying a stucco texture keep your hopper gun clean and adjusted and your compressor pumping out 90 to 100 PSI. Remember once or twice every day to clean out your air jet with a 1/8" drill bit. A piece of wire or nail will not do this job and is unacceptable.
4. When you are spraying, maintain your plaster mix consistency as you use the plaster. Add a little water when you feel the plaster has stiffened a little. This is critical for a good texture coat. Do not attempt this with plaster that is older than 30 minutes.
5. Organise your day to try and keep out of the hot summer sun particularly round the middle hours of the day.
6. Try and complete a full length of wall in one go, otherwise it can be

difficult to disguise the "cold" joint where you restart the next day. If circumstances prevent you finishing a complete wall, try and stop under the middle of a window opening or something similar. Ensure that you leave a leading edge of mesh uncoated so that you can overlap the new drop of mesh the next day. Also scrape off any excess plaster to further reduce the chances of the "cold" joint showing.

7. The fibreglass mesh must not bridge over any construction joints.
8. There must be no horizontal surfaces of Caviteclad wall cladding which will be subject to water ponding.
9. Ensure there is no possibility of water leaking in behind the coating due to poor sealing around projections, etc.
10. Any exposed top or bottom edges of sheets must be protected by PVC beads or by continuing the fibreglass mesh and plaster system over the edges of the sheets.
11. Carefully peel back masking tape so that the masked edge is left undisturbed. Remember, it is important not to leave this job till last. Pull off masking tape as soon as is practicable, preferably while the finish coat is still "green". This will enable you to clean all masked edges with a dry paintbrush and remove/knock off any larger dags of plaster texture.
12. Alkaline Caviteclad plaster will mark aluminium joinery and "Colorsteel" roofing. Any overspray must be cleaned off immediately.

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 Caviteclad 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 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 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.

Warranty

The recommendations, suggestions, statements and technical data provided by Specialized Construction Products Ltd 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 Ltd be liable for incidental or consequential damages. Specialized Construction Products Ltd 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 Ltd; 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.

The long-term durability of the Caviteclad system is dependent upon the correct preparation and application of all of its components in strict accordance with all the relevant written instructions and detail sheets. On-site application is beyond the control of Specialized Construction Products' and it cannot guarantee workmanship or the correct preparation and application of its' products or systems. The licensed Caviteclad contractor shall take the overall responsibility for; on-site supervision, staff training, installation, and quality control.

System Guarantee Period

15 years from date of practical completion to plastering.

Workmanship Guarantee Period

5 years from date of practical completion to plastering.

Technical Assistance

Assistance and information is available by calling Specialized Construction Products Ltd on **(09) 414 4499** or by e-mail at **info@specialized.co.nz**.