

Specialized Slab Edge Insulation System

1. Introduction

This specification is for the application of Specialized Construction Products Slab Edge Insulation System. The Slab Edge Insulation System is made up of Expanded Polystyrene (EPS) or Extruded Polystyrene (XPS) sheets adhesively and mechanically fixed with Specialized Fine Mesh coat and Specialized Anchors over concrete foundation.

The chosen backing substrate is then overcoated and reinforced with a range of specially blended proprietary cement or acrylic-based plasters before the walls are finished with a finishing plaster chosen from Specialized Texture range or Dulux Acratex Acrylic Texture range and painted with Dulux Acratex 955 Acrashield Advance acrylic paint system.

Note: XPS sheets must be either skin off or abraded on all sides to provide adhesion for the render.

2. Health & Safety

Avoid contact with eyes and prolonged contact with skin. Wash thoroughly after handling all wet or dry material. 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 cement 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. The wet compound is alkaline and 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.

3. Pre-Plastering Requirements

The masonry substrate must be installed in strict accordance with the manufacturer's specifications and recommended installation procedures. The manufacturers required curing time must be allowed after placement of the blocks to ensure all the pointing has completely cured and the walls have stabilised. The finished appearance of the wall is highly dependent on the standard of the wall construction.

All loose or damaged material must be removed by water blasting, sandblasting or mechanical wire brushing and repaired prior to being primed. All surface imperfections such as blowholes, cracks and spalling must all be patched and levelled to required tolerances and smoothness with Specialized plaster materials before the EPS or XPS substrate is applied.

SCP Slab Edge Insulation System's job is to provide a means of thermal insulation and an aesthetically pleasing finish to the exterior envelope of concrete foundations.

4. Surface Preparation

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

All surfaces to receive an application of EPS or XPS 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 the EPS or XPS material, please refer to Specialized Construction Products for specialist advice before you proceed.

5. EPS or XPS Application

Prior to the application of Slab Edge Insulation System, the masonry surface must be coated with Specialized Tankit.

Apply one coat of Specialized Tankit to the top and bottom edges of the EPS and or XPS sheet. To bond the EPS or XPS to the concrete foundation mix up Specialized Construction Products fine mesh coat plaster with the addition of 1 litre of Specialized Construction Products resin per bag. Cut the polystyrene to size and check the fit. Apply the fine mesh coat plaster to the back of the sheet with a grooved trowel. Specialized Masonry anchors should be placed every 1000mm centres to ensure the sheets stay in place while the bonding plaster sets. Bed each sheet/shape back against the wall, keeping a check that the sheets/shapes 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.

6. Materials Application

Any EPS or XPS that has been directly adhered to the concrete foundation must be rasped and free of all bond-inhibiting materials, including but not limited to dust, oxidation, and dirt. 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.

Base Coat of either Specialized Coarse Mesh Coat or Powaflex Acrylic.

The instructions for mixing the base coat plaster 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. Thickness is critical - a minimum thickness of 3mm must be achieved with this first coat. Do not force the mesh hard down onto the surface of the polystyrene. The mesh pattern should be "grinning" through, but the mesh itself completely covered with plaster. 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. Repeat the process. Mesh must overlap the adjacent drop and plaster coat by at least 30mm.

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.

7. Finishing Plasters Options over a cement base

Option 1: FLOAT FINISH

A polymer modified cement-based plaster which is polished flat to achieve a fine granular finish.

Option 2: SPANISH FINISH

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.

Option 3: SPRAY TEXTURE

A polymer-modified, cement-based plaster which can be sprayed through a sagola gun to achieve a finely spiked texture finish.

Option 4: FINE SPRAY TEXTURE

A polymer-modified, cement-based plaster which can be sprayed through a hopper gun or a sagola gun to achieve a heavy stucco plaster finish.

8. Finishing Plasters Options over cement or acrylic base (where using an acrylic texture over a cement base seal with Dulux Acratex Green Render Sealer prior to applying the Acrylic Texture)

- 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)

9. Curing

The curing time of plaster system that has been applied to the EPS or XPS 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 will not fully cure for 28 days, if the base coat has had a finish applied over it. 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.

10. PAINT - Dulux Acratex 955 Acrashield Advance

Dulux Acratex 955 Acrashield Advance acrylic-based paint that has been specially formulated for use over cement and acrylic plasters.

Cement finishes must be coated with Acratex 501/10 Green Render Sealer followed by 2 coats of Dulux Acratex 955 Acrashield Advance tinted to the selected colour and applied by brush and roller at a spread rate of approximately 6m².

Acrylic finishing textures must be coated with 2 coats of Dulux Acratex 955 Acrashield Advance tinted to the selected colour and applied by brush and roller at a spread rate of approximately 6m². 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.

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 any plaster materials 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 in this 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. See Surface Preparation above.

DO NOT add any more water than prescribed by the technical data sheet for this product.

DO NOT wet the wall prior to the application of this 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, discolouration, wash off, and overall system failure.

14. Maintenance

The Slab Edge Insulation System 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.

Specialized Construction Products guarantees this product is free from manufacturing defects and will perform to its specification for 10 years from the date of application if application occurs within the products stated shelf life.

Material Guarantee Period

10 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 are available by calling Specialized Construction Products on (09) 414 4499 or 0800 800 79 or by e-mail at info@specialized.co.nz.