

## Supercrete™ Crack Repair Procedure

### General

Prior to undertaking any repairs it is essential that the owner establish the cause of damage. Professional advice must be obtained to establish that any structural damage or defects have at first been remedied. Cracking occurs through excessive movement such as the building settling, ground subsidence, structural movement, a seismic event or acts of nature.

### Minor Hairline Cracks (less than 1mm)

Hairline cracks are bigger or wider than micro fissure cracks, usually up to a width of 1mm. This is significant when you consider a layer of Supercoat™ Platinum Series external low sheen paint is applied to achieve a dry film thickness of approximately 0.025mm (25 microns), in other words it would take 40 coats of Supercoat™ external low sheen paint to achieve a paint film that was 1mm thick. Supercoat™ Elastoshield is ideal for brushing into hairline cracks with three coats easily filling a 1 mm crack. Alternatively, Supercoat™ Flushing Compound (flexible crack filler) may be used. Once the repairs have been completed you will need to coat the entire wall area using two coats of Supercoat™ Elastoshield.

### Cracking (1 - 2mm)

Cracks that are between 1 - 2mm may be brushed with Supercoat™ Surface Sealer and then filled with Supercoat™ Flushing Compound. Once the repairs have been completed, you will need to coat the entire wall section using two coats of Supercoat™ Elastoshield.

### Cracking (Greater than 2mm)

Where cracking is greater than 2mm in width, then the crack must be ground out to a V groove, making sure to taper an area away from both sides of the crack. Brush the exposed area with Supercoat™ Surface Sealer, then apply Supercoat™ Multitex and embed a strip of mesh no less than 75mm wide over the crack forming a bandage. You will then need to re-texture the entire wall with the selected Supercoat™ cementitious or acrylic based texture (making sure that the entire textured area has been coated with one coat of Supercoat™ Surface Sealer only where a cementitious texture has been chosen) prior to coating with two coats of Supercoat™ Elastoshield.

### Control Joints

A movement Control Joint is generally installed where there is a lack of existing Control Joints. When a building cracks it is demonstrating to us that there is a build up of pressure at that point, this pressure build up is caused by a number of factors some of which have been outlined in the General Section of this document.

A Control Joint is created using an electric grinder/saw and should be cut through the plaster and substrate, you do not need to cut through the Steelock™ batten system. A Control Joint should be a nominal 10mm width and designed in conjunction with the applicable Supercrete™ Design & Installation Guide. Once formed, a 13mm PEF Rod should be inserted into the control joint at a depth of 10mm, then fill to the surface with Holdfast FixAll 220LM MS Sealant, this will form a 10 x 10mm sealant bead. Where a full re-plaster is required, the option exists to apply Holdfast Gorilla Nailpower FLEXI Expanding Foam into the joint and then fix in place a Supercoat™ Pre-Meshed Control Joint, the Supercoat™ Pre-Meshed Control Joint is adhered to the substrate using Holdfast FixAll 220LM MS and then screwed in place using 14 - 10 x 25mm long bugle head coarse thread screws at 500mm maximum centres.

Where cracking and/or bulging of up to 2mm is present on top of existing control joints, in most cases the crack can be ground out and then taped either side in preparation for painting. The entire wall area is then coated with two coats of Supercoat™ Elastoshield.

Where cracking and/or bulging is present greater than 2mm on existing control joints due to extensive movement in this area, the control joint will need to be ground out and re-instated in accordance with the Control Joint options above. After the control joint has been re-instated, the affected wall area will need to be re-plastered using Supercoat™ Multitex and then fully meshed using Supercoat™ Grid Mesh. You will then need to re-texture the entire wall with the selected Supercoat™ cementitious or acrylic based texture (making sure that the entire textured area has been coated with one coat of Supercoat™ Surface Sealer only where a cementitious texture has been chosen) and then finished using two coats of Supercoat™ Elastoshield.

### **Re-meshing Walls**

Where extensive cracking or delamination has occurred over an entire section of wall then you will need to re-plaster and mesh the entire wall surface. First you should determine what has caused the cracking to the wall. Prior to undertaking any work, make sure an independent report has been furnished that identifies the cause of the problems. You will need to make sure that other third parties complete any repairs to other building components prior to initiating your plastering works.

### **Delamination**

Where delamination has occurred make sure that you remove all loose material, you will then need to provide a key for the new plaster to adhere to, this would be a slurry of Supercoat™ Multitex Adhesion Plaster.

### **Multiple Cracks**

Where multiple cracks have occurred there will be a high probability that there is a need for Control Joint(s) to be formed. Follow the guidelines set out earlier in this document to determine how to repair multiple cracks of the various thicknesses.

Once you have remedied the cracks you will need to re-plaster and mesh the entire wall surface, make sure that you apply Supercoat™ Surface Sealer prior to application of the Supercoat™ Multitex Adhesion Plaster which is used as a key coat before applying any subsequent base plaster coats. You will then need to re-texture the entire wall with a Supercoat™ cementitious or acrylic based texture followed by two coats of Supercoat™ Elastoshield.

**Colour Selection**

For further information on Light Reflectance Values (LRV) refer to the applicable Supercoat™ Technical Manuals Appendix A - Light Reflectance Values (LRV) which can be found at [www.supercoat.co.nz](http://www.supercoat.co.nz).