

INSTALLATION INSTRUCTIONS

NEWLATH 2000

Damp-proofing Membrane & Plaster Base

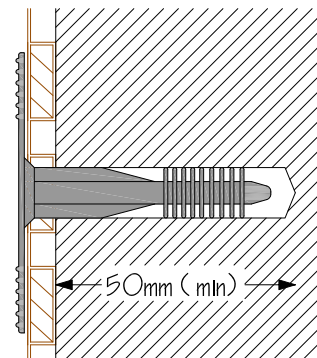
Edition 5.2 - 17 February 2010

PRODUCT CODE - M9 & M10

1. FIXING

Clean the substrate to obtain as flat a surface as possible. Remove any damaged, loose or crumbling plaster. Newlath 2000 (with the mesh facing outward) should be fixed to a firm flat surface wherever possible. Dubbing out may be necessary on uneven substrates. Newlath 2000 is fixed with the Newlath Plug to all substrates except when fixing to plywood or timber when a galvanised clout nail should be used or to slightly friable mortar substrate when the Newton Cob Plug should be used. Newlath 2000 can be fitted horizontally or vertically.

Care must be taken to ensure that the Newlath 2000 is pulled tight and square while fixing as this will avoid sagging or bulging which can cause problems when plastering or rendering. Fix from the centre outward. Holes can be drilled through the Newlath 2000 into the wall to a depth of at least 50mm using a 7 or 8mm bit depending on substrate. If excessive pressure is applied when fixing the plugs this can distort the membrane causing indentations of the Newlath 2000. The subsequent variations in depths of plaster or render can result in cracking. Hammering flush will distort the Newlath 2000 and cause matting of the Newlath 2000, and subsequent variable depths of plaster or render. A smaller-diameter bit can be used on soft backgrounds to avoid the risk of pull-out. Fixing centres internally must not be greater than 250mm horizontally or vertically. Fixing centres externally should be 150mm centres and staggered to even out the stresses. On curved or uneven surfaces, closer fixings should be used. On exposed areas the closer fixings are recommended, to restrain possible thermal movement.



Ensure firm and even fixing. Fit Newlath 2000 on any return wall to a length of 300mm to avoid drawing damp from the original offending wall. Fixing should not take place in extreme conditions. Above 30°C and below -5°C.

If the finished wall is punctured when holes are drilled to fix brackets, etc., a waterproof Newton Mastic should be inserted before fixing bolts are inserted to ensure no bridging to the damp surface occurs.

2. FITTING

Newlath 2000 can be cut with a sharp knife or shears. Where it has to be cut around the pipes or other fixtures, the exposed area must be treated with a waterproof Newton Mastic to ensure there is no bridging between the damp or stained surface and the new finish. Newlath 2000 should be taken into reveals. Newton Mastic sealing is recommended between new plaster and window frame edges, etc. This avoids bridging. Plaster board panels can be fixed to Newlath 2000 by the dot and dab method, giving a dry surface ready for immediate decoration. 'Dabs' should be applied on the Newlath 2000 fixing heads, board edges and membrane to cover 50% of the Newlath 2000.

Note: Although the Newlath 2000 system poses no health hazards usual protective clothing and goggles should be worn in accordance with current health and safety regulations.

3. JOINTING

There is an area along the length of one side of Newlath 2000 that is free of mesh. This permits easy lap jointing and must be used to ensure a continuous key for plaster or render. If a joint is necessary where both surfaces of Newlath 2000 have mesh on them, this must be at least 100mm. Do not put fixings through the area of the Newlath 2000 where an overlap will occur. Put fixings through both surfaces when the lap joint has been made.

Joints may be made horizontally or vertically. Position fixings close to the edge of all joints to reduce the risk of shrinkage cracks. Newlath 2000 can be taken round corners. On particularly difficult shaped corners, cut the Newlath 2000 and butt joint. Place a strip of heavy duty polythene behind the Newlath 2000 to a depth of 100mm either side of the joint, to avoid plaster penetrating the joint and making a 'bridge'. If fixing Newlath 2000 horizontally, fix the top sheet behind the bottom sheet of the lap.

4. NEWLATH PROFILE

It is recommended that the Newlath 2000 is raised from the floor by 20-25mm to prevent bridging from the floor to the wall plaster or render. Newlath Profile, available in 2 metre lengths, should be fitted to the bottom of the Newlath 2000 as a plaster stop, guaranteeing that the plaster / render will stop short of the floor. Profile must be fixed at the same time as Newlath 2000 and therefore before the plaster or render is applied. Profile is not recommended where the run of wall is uneven. Where a polythene membrane is incorporated in the floor, it should be carried in front of the Newlath 2000 and tape jointed to form a seal.

A gap is not required at the ceiling level, indeed the system works more efficiently when the system is not ventilated as higher internal vapour pressure forces dampness out of the wall to the outside. Where possible, Newlath 2000 should be taken into the ceiling void. Once the finish has been applied and has dried, the 20-25mm gap to the bottom of the plaster / render be covered by a wooden skirting.

5. FINISH (INTERNAL)

5.1 PLASTERING

The recommended plaster for Newlath 2000 installed is Tarmac Whitewall. Generally the application will be in three coats: 6mm scratch coat, 6mm second coat, and 3mm finish coat. On ceilings or where less thickness of plaster is required the work can be completed in two coats. Tarmac Whitewall should be applied strictly in accordance with the manufacturer's instructions and good plastering practice as described in BS 8481 : 2006, BS EN 13914-2 : 2005. Always allow 24 hours drying time between coats of plaster. For a high impact resistant finish, use Whitewall High Impact Backing Plaster. **Note: Tarmac Whitewall and Tarmac Whitewall High Impact Backing Plaster are not suitable for areas of high humidity and wet areas such as swimming pool surrounds.**

5.2 RENDERING

Render with a mix of sand, cement and lime should be applied in two coats using the procedures defined within BS EN 13914-1 :2005 to a total thickness of 14mm for two coats or 17mm with three coats with the third coat been a skim coat of finishing plaster of 3mm. The scratch coat should be a mix of 1 part lime: 1 part cement: 5 parts clean well-graded sharp sand and the second coat should be a mix of 1 part lime: 1 part cement: 6 parts clean well-graded sharp sand. The scratch coat should be 7mm and the second coat should be 7mm.

To lessen the incidents of cracking which is liable to occur with any cement-based render to a smooth non-porous surfaced material such as Newlath 2000, it is best to mix the lime and sand a day or more before use. Cement can then be added at the time of rendering. The work should be of two coats of render and if required, a third coat of finishing plaster. The purpose of the 7mm scratch coat is to stiffen up the lath and to provide rough and absorbent, backing for subsequent coats. Work this scratch coat well into the mesh. Subsequent coats should be of the same mix. Each 7mm coat of render should be allowed to dry for a period of not less than seven and preferable ten days, longer if possible. Cracking may occur if shorter time is allowed between coats. It is important that the render coats are allowed to cure correctly over the 7 to 10 day period with the render spay dampened and in warm periods the render should be protected from excessive drying out by covering with damp hessian sheets with plastic sheeting over. A smooth finish is not recommended.

Expansion joints should be troweled in through the render to the membrane along each lap joint. These joints must be filled with a suitable flexible polymer-based sealant. Expanded metal angle beads and stop beads can be fixed where appropriate using dabs of the same material mixed as for the scratch coat.

5.3 HYDRAULIC LIME

NHL (Natural Hydraulic Lime) 3.5 should be used to a combined depth of 20mm with a 10mm scratch coat and a 10mm second coat. The mix ratio is 2.5 parts sand to 1 part NHL 3.5 mixed as per manufacturers instructions. The 10mm scratch coat is pushed firmly into the membrane mesh. Check the application the day after and rub out any cracks. The surface should be thoroughly scratched without breaking the surface of the mesh.

The scratch coat has to be left for a minimum of 7 days to set. It should be protected from draughts and extremes of temperature.

Before applying further coats carefully drill or scratch out a small area into an area behind the mesh to confirm that it is set and reasonably hard. The surface will harden quite quickly it is the area behind the mesh that has to be set.

The second coat is the float coat and is applied then ruled off to flatten the wall surface. The mix ratio is 2.5 parts sand to 1 part NHL 3.5 mixed as per manufacturers instructions. The scratch coat has to be dampened down before application of the float coat. The work has to be protected and tended as for the scratch coat. The second coat is floated or troweled as the finished coat.

6. FINISH (EXTERNAL)

6.1 RENDERING

Render with a mix of sand, cement and lime should be applied in two coats using the procedures defined within BS EN 13914-1 :2005 to a total thickness of 20mm. The scratch coat should be a mix of 1 part lime: 1 part cement: 5 parts clean well-graded sharp sand and the second coat should be a mix of 1 part lime: 1 part cement: 6 parts clean well-graded sharp sand. The scratch coat should be 10mm and the second coat should be 10mm.

To lessen the incidents of cracking which is liable to occur with any cement-based render to a smooth non-porous surfaced material such as Newlath 2000, it is best to mix the lime and sand a day or more before use. Cement can then be added at the time of rendering. The work should be of two coats of render and if required, a third coat of finishing plaster. The purpose of the 10mm scratch coat is to stiffen up the lath and to provide rough and absorbent, backing for subsequent coats. Work this scratch coat well into the mesh. Subsequent coats should be of the same mix. Each 10mm coat of render should be allowed to dry for a period of not less than seven and preferable ten days, longer if possible. Cracking may occur if shorter time is allowed between coats. It is important that the render coats are allowed to cure correctly over the 7 to 10 day period with the render spay dampened and in warm periods the render should be protected from excessive drying out by covering with damp hessian sheets with plastic sheeting over. A smooth finish is not recommended.

Expansion joints should be troweled in through the render to the membrane along each lap joint. These joints must be filled with a suitable flexible polymer-based sealant.

Expanded metal angle beads and stop beads can be fixed where appropriate using dabs of the same material mixed as for the scratch coat.

At ground level a bell finish is recommended. Decorative treatment should not be attempted until rendering has become quite stabilised and dry. There is a risk of renders cracking and appearing unsightly. The Newlath 2000 system nevertheless remains a sound waterproof barrier. To reduce any unsightliness, pebble dash or roughcast is the recommended finish. This can be applied with the final coat. If any cracks appear afterwards, then cover them with a synthetic fibre-cloth then two coats of a decorative treatment or textured finish. The final decoration should be of a light colour to reflect sunlight.

6.2 HYDRAULIC LIME

NHL (Natural Hydraulic Lime) 3.5 should be used to a combined depth of 20mm with a 10mm scratch coat and a 10mm second coat. The mix ratio is 2.5 parts sand to 1 part NHL 3.5 mixed as per manufacturers instructions. The 10mm scratch coat is pushed firmly into the membrane mesh. Check the application the day after and rub out any cracks. The surface should be thoroughly scratched without breaking the surface of the mesh.

The scratch coat has to be left for a minimum of 7 days to set. It should be protected from of temperature, accelerated drying and wind and rain using damp hessian sheeting covered with plastic sheeting.

Before applying further coats carefully drill or scratch out a small area into an area behind the mesh to confirm that it is set and reasonably hard. The surface will harden quite quickly it is the area behind the mesh that has to be set.

The second coat is the float coat and is applied then ruled off to flatten the wall surface. The mix ratio is 2.5 parts sand to 1 part NHL 3.5 mixed as per manufacturers instructions. The scratch coat has to be dampened down before application of the float coat. The work has to be protected and tended as for the scratch coat. The second coat is floated or troweled as the finished coat. A third coat can be applied to give extra strength once the second coat is fully cured.

DO NOT APPLY DECORATIONS UNTIL PLASTERS OR RENDERS ARE THOROUGHLY DRY.

Newlath 2000, Newton Profile, Newton Mastic and Newlath Fixing Plugs are available from John Newton & Co Ltd, and from good builders merchants

Technical staff will be pleased to give help and advice on the most effective use of the product.