



traditional & ecological building materials – caring for the future, respecting the past
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BEST PRACTICE GUIDE

Fibrelime Premixed Universal Plaster and Render

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IMPORTANT NOTICE

Health & Safety Information

Fibrelime cannot accept any liability for incorrect use or application of Fibrelime. Recommended 'best practice' should be followed at all times. If in doubt, please call us on Tel: 01760 337994 07761119394 for advice or assistance. Detailed Health and Safety Data sheets are available to download from the "Technical Stuff" section of the website under Safety Data.

Fibrelime description:

Fibrelime is a traditional based plaster with improved fibres which extends the wet storage life and durability of the finished plaster. The advantages are improved adhesion, flexibility, ease of application and resistance to shrink, crack and shear damage. These properties have the advantage of greatly reducing the risk of lime plaster failure. Fibrelime enables a range of finishes from smooth to textured. As a lime putty product Fibrelime has full breathability. **Fibrelime can only be used as a onecoat system, do not attempt more.** Can also be used as a flexible mortar, but requires repointing in aggregate lime for appearance if it is seen.

Fibrelime Suitability:

Fibrelime can be used on a range of background materials used in historic and modern construction from a 3mm skim coat to a 30mm one-coat render or plaster. Fibrelime will adhere to numerous substrates with few limitations. Tests have shown Fibrelime is not suitable on plastics. Other materials will accept Fibrelime as a plaster to a lesser or greater extent. If specified it is useful to understand that some of the suitable materials are:

Lightweight blocks, bricks, stone (most masonry) earth, reed, woods with an open surface, metal and timber lath, woodwool board, fibreboards and scratched metals with a low coefficient of thermal expansion.

Because of the wide range of substrates found in historic and modern construction it is necessary to seek advice and test the suitability of Fibrelime before use.

Historic plasters can be overskimmed and stabilised with Fibrelime, this has the benefit of conserving historic elements that would otherwise be lost.

Great care should be taken to the suitability of substrates for plastering when plastering ceilings and high sided walls; Fibrelime has good adhesion together with tensile and reinforcement strength, but ultimately only as good as the strength of the substrate to which it is applied.

Preparation before Application:

It is essential that Fibrelime is mixed very well by hand, or preferably mechanically, this will ensure that the ingredients are properly blended and that the plaster is suitably 'fat' which results in a more workable material. Failure to carry out remixing will affect the performance and ease of application. Do not add or remove water from the premix. On historic buildings remove as much cementitious and hygroscopic material as possible as this can retain moisture, also remove any traces of materials which may contaminate the new plaster. Remove all loose material, dust off and dampen the surface in the usual manner; this will vary according to the background suction of the substrate. Lightweight blocks will need a lot of watering down, or may require an application of SBR or PVA to reduce the background suction.

Preparation for lath work:

Lath spacing should be reduced for Fibrelime; typically 5-6mm space on laths of at least 8mm thick with staggered joints over the studs. On laths allow for extra plaster to form the keys.

Ceiling Laths:

Narrow the sawn lath spaces to a 4-5mm gap, make sure the laths are dry and do not damp them. Tip out the water formed on the top of the premix (do not do this for other substrates) and remix the contents until the lime is blended and 'fat' again. Ensure that the right pressure is applied to the plaster to form a neck and key around the laths. Fibrelime will continue to push through as an excess if it is overtroweled. The trowel pattern should 'lace' the ceiling. Do not apply more than one coat as this will lead to separation.

Patching old Ceilings:

Remove the loose material, do not damp the original or new laths, but damp the old to new plaster junctions very well before application. then follow the instructions as above.

Fine Finishes:

A good quality finish can be achieved using Fibrelime as a one coat system, however sometimes a very high quality fine finish is required similar to the expectations for a high status building. In these situations we suggest an appropriate aggregate and lime mix as a first coat and if required a second levelling coat. Ensure that the aggregate coat beneath the Fibrelime is of sharp sand with an open texture. Damp the aggregate coat in the normal way and steel trowel Fibrelime on to a smooth finish.

Masonry Backgrounds:

As with all lime renders and plasters most masonry backgrounds will require a lot of pre-dampening before application. However, some masonry backgrounds have a high background suction rate, (ie, soft bricks) which makes a Fibrelime finish difficult to achieve; in these situations use an appropriate aggregate and lime mix for the first coat followed by a finishing coat of Fibrelime. This approach is also very useful for patching in large areas on masonry walls as it reduces the potential for perimeter shrinkage.

Plasterboard:

Fibrelime can be used successfully on plasterboard and is particularly useful where continuity with other lime plastered elements of a building exist or, a more sustainable option is sought.

Tape and bead the boards in the normal way. Ensure that the plasterboard is properly dampened with a brush or atomiser spray. On large areas or in hot weather it may be necessary to dampen the area just ahead of the plaster.

Apply the plaster between 3-6mm depending on your personal preference. Fibrelime at this thickness on to plasterboard will start to set within a few hours in moderate conditions. You will require 2-4 trowelling phases with a stainless steel trowel to apply and close in the finished plaster. Always test a sample of your board before committing to a large area.

Fibrelime Plastering of Magnesium Silicate Board:

Absorbent boards such as Magnesium silicate should first be primed with a suitable primer to control the board suction whilst still allowing compatible vapour diffusion. A good primer grit size is also necessary to provide a key. Go to our related products page for information on suitable primers.

It is important that the plaster applicator tests the board and primer for bond strength to satisfy themselves it is fit for purpose.

The joints should be fibre scrim taped according to the board manufacturer's instructions.

Lightly spray the primed board surface to assist adhesion then plaster to the given thickness. Fibrelime can be applied from 3mm thick but must be kept as a one coat system.

Drying times will vary depending on temperature and humidity, but if applying in moderate conditions at 3mm thick it is possible to apply and close in to a finish in the same day. Do not over trowel as this can lead to separation.

Sometimes air pockets form under the plaster; these should be left until the plaster has sufficiently firmed up, but not quite set, for a final steel trowel finish. Do not attempt to float a finish.

Adjusting the finished surface texture is possible by using breathable textured paints which can be seen via our Related Products page.

Reinforcing Mesh:

Sometimes a reinforcing mesh may be desirable or specified (see related products page) Use 10mm Grade 4 fibreglass reinforcing mesh. Follow the guidance on the website <http://www.sas-europe.com/brands/promesh/> this mesh is particularly useful in high impact areas, with mixed substrates and where historic materials require retention but are less stable. Nylon insulation washers with stainless fixings can sometimes be useful to mechanically fix the mesh into a more reliable structure (Take advice from your Specifier when working on less stable substrates or structures as Fibrelime Ltd will not take responsibility for failure in these situations).

Application:

Internal plasters can be of any appropriate thickness; external render thickness is generally between 15-25mm, however you must check with your specifier and check the 'Wind Driven Indices' (BRE) for your area. Allow for a reduction of thickness on the dried render of between 5-10%.

Apply by trowel or, hopper spray the plaster from 3 to 20mm thick. With experience thicker coats are possible by applying in phases which allows some moisture to leave the previous application before applying the subsequent application. Do not allow to dry between applications as Fibrelime must remain a one coat system.

Allow the moisture of the plaster to reduce before attempting to trowel or float a finish, this may require more than one trowel phase but, as with most plasters, do not over-trowel as this can lead to separation. Do not use in extremes of temperatures

Aftercare:

All lime plasters require dampening down to control the recarbonation of the lime. Fibrelime is far less susceptible to serious failure if aftercare is neglected, however it is good practice to control the drying period in order to get the most from the product. Any cracking that might appear should be very limited and can be filled with more Fibrelime. Take care to wash off any powdery residue from the filling or from the aftercare stages before painting.

Fibrelime will tolerate cold temperatures during the setting period however, it is always good practice to cover the work to protect it against frost action.

Painting:

Fibrelime can be painted with a range of modern and traditional paints. Where breathability is desired use breathable lime or clay based paints or other mineral paints such as Potassium Silicate. Check first with your paint supplier that the paint you are using is compatible with Fibrelime plaster and applicable to the task. Before applying the paint ensure that the plaster is suitably moist or completely dry, depending on the paint manufacturers recommendations.

Do not sand down Fibrelime as this will cause the surface to fluff.

Maintenance:

Fibrelime finished plaster requires minimal maintenance, simply fill any movement cracks, particularly on external renders, with more Fibrelime, clean down and repaint.

Storage:

Fibrelime, as a wet lime putty premix, will in theory store indefinitely, however as the ingredients will continue to separate in the tub, we recommend that it is used within a year.

Do not store in extremes of temperatures

General:

Do not use in any extreme conditions of temperature, humidity or background moisture, or in any other extreme or unusual conditions.

Do not use admixtures of any kind without first consulting with Technical at Fibrelime Ltd 01760 337994 or 07761119394.

Do not add water to the premix as this will compromise the plaster's strength.

Do not drain water from the premix.

Fibrelime contains Calcium hydroxide (lime putty) and as such will degrade organic materials if subjected to prolonged exposure to uncarbonated lime.

Wet Fibrelime may have a bleach affect on some fabrics.

Detailed Health and Safety Data sheets are available to download from our website.

Recommended Reading:

1. Stafford Holmes and Michael Wingate, 2001, Building with Lime, Intermediate Technology.
2. English Heritage, 2012, Practical Building Conservation Revised, Volume III: Mortars, Renders and Plasters, Ashgate Publishing.
3. SPAB Information Sheets 4 and 9 www.spab.org.uk/publications/the-bookshop

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