



## Technical Advice Note

Topic: Specifications for and use of traditional wet dash lime harling

Reference Number: TAN1

### **When to harl**

Prior to about 1930, virtually all harling was wet dash and where harling on buildings built before that date is to be replaced, the new finish should be a lime based traditional harl. A cement rich wet harl, or dry dash, are not acceptable substitutes.

Where there is clear evidence that a building had originally been harled, the harling should be reinstated even though the backing wall may be of coursed stonework or stone rubble where the temptation might be to point it to produce a picturesque effect. A building which was never intended for harl, should not be harled unless the underlying stone is severely decayed or where there have been extensive previous modifications to the walls, with new openings formed and others filled in. Where a building is in a conservation area, or is listed, planning permission and/or listed building consent will be required to roughcast the building if it was not previously roughcasted.

Original margins around windows and doors, and corner quoins in stone or brick, must be carefully respected and should not be harled over. Where no margins exist, the harling should be carried into the window in the original manner. Raised margins around windows should not be formed artificially in render.

### **General principles of harling**

The harling should always be weaker than its backing material. A weaker mix will produce more numerous and smaller fissures on drying, and will accept greater movement of the building than a stronger mix which produces fewer but larger cracks, and which is more likely to retain any moisture which may seep behind it. Each coat applied in the build up of the harl should be progressively weaker and thinner, the final dashing coat being weakest of all.

### **Preparation of backing surfaces**

If the whole wall is to be harled, rather than patched, all original harling should be removed, together with any loose or friable material on the surface of the masonry or in the joints. Cement mortars should be removed where practical, but not to the extent of creating such vibration in the wall that its integrity could be compromised. Loose masonry should be rebedded and all voids in the wall filled with mortar using pinnings to tightly pack the joint. Eroded masonry joints should be packed out with mortar in thin layers, to the face of the wall. Significant hollows in the wall can be brought out to the face of the wall by dashing on slightly stiff preliminary coats of the harling mix. Mortar in preparation work should be allowed to cure slowly before applying any harling coats. The overall aim should be to create a surface that is relatively even, but not mechanically flat, so that slight undulations in the finished work reflect the nature of the backing wall.

### **Damping Down**

Wall surfaces should be washed free of any loose material or dust and well dampened the day before starting work. On the day of harling, absorbent surfaces should receive further damping down, but should not be running with water. Smooth dense surfaces such as granites should be dry, as water

present on such surfaces can prevent adhesion of the lime harling. If the surface is so dense and smooth as to prevent adhesion, a thin "*splatterdash*" coat may be necessary to provide a mechanical key. Alternatively the wall may be '*primed*' with a lime putty slurry of 50% lime and 50% water.

## **Application of Lime Harling**

### **Method 1**

The harling should be applied by hand throwing in two coats. The first coat should be applied to a thickness of around six to ten millimetres. As it stiffens it should be pressed lightly into the wall without destroying its natural key, and should be kept moist for several days. Once dried, it should be re-dampened before applying the second coat. This should be thrown on evenly with a harling trowel to a thickness of about four to eight millimetres. This second coat should be thinner and weaker than the first coat.

### **Method 2**

The harling is applied to the wall in two coats. The first floating coat should be applied to the prepared wall using a plasterer's float and compacted to a thickness of about 10 millimetres. Once applied, this first coat should be repeatedly dampened down and when firm, but not set, it should be lightly keyed with a wood toothed instrument. For maximum adhesion, the second, casting coat should be applied while the first coat is firm, but not hardened. Before the second coat is applied, the first coat should be lightly dampened. The casting coat is thrown on with a trowel or a scoop to an even texture. It should not be worked over, but should be kept damp until it has cured. Both coats should be immediately protected from rain, wind, sun and frost with suitable drapes.

## **Lime Washing**

Both harling methods are best finished off with at least three coats of lime wash, but preferably five coats. Before each application of limewash the wall should be lightly dampened to prevent water being drawn from the limewash mix by the suction of the dry wall surface. More thin coats are better than fewer thicker coats. Thick coats are more prone to cracking, and thin coats can better be worked into any cracks and fissures in the harling.

## **Specimen specification for pointing mortar**

Pointing of rubble masonry prior to harling can be carried out with a suitably matured mortar consisting of one part lime putty and three parts graded sand. If hair is to be included in the mix for reinforcement, it should be added just before use and thoroughly mixed in.

## **Specimen specification for harling**

### **Method 1**

One part non-hydraulic lime (or feebly hydraulic lime) to two and a half parts graded sand, both first and second casting coats.

### **Method 2**

One part non-hydraulic lime to three parts graded sand, first (floating) coat, mixed with hair if required.

One part non-hydraulic lime to three parts graded sand (containing larger aggregate if required), second (casting) coat.

### **Specimen specification for limewash**

One part superfine non-hydraulic lime to ten parts clean water by volume.

### **Sample Panel**

It is advisable to have a sample of harl, 1 to 2 square metres in area, carried out for inspection before the main work proceeds.

Lime can be supplied by:

**Mason's Mortar Limited**

**77 Salamander Street**

**Leith**

**Edinburgh EH6 7JZ**

**Tel: 0131 555 0503**

**Fax: 0131 553 7158**

**[www.masonsmortar.co.uk](http://www.masonsmortar.co.uk)**

who may also provide advice on its use. Mason's Mortar Limited may be able to provide further advice on harling mixes and any alternative mix suggested will be considered.

Lime products can also be obtained from:

**The Scottish Lime Centre Trust**

**The Schoolhouse**

**Rocks Road**

**Charleston**

**Fife KY11 3EN**

**Tel: 01383 872 722**

**Fax: 01383 872 744****[www.scotlime.org](http://www.scotlime.org)**

### **Grants**

Grants may be available towards the cost of harling work from Aberdeen City Heritage Trust where a building is listed or in a conservation area. For further information please contact:

**Project Officer**

**Aberdeen City Heritage Trust**

**PO Box 10450**

**Aberdeen**

**AB10 1WS**

**Telephone: 01224 522755**

**Fax: 01224 636181**

**E-Mail:**

**[dcampbell@aberdeenheritage.org.uk](mailto:dcampbell@aberdeenheritage.org.uk)**

**[www.aberdeenheritage.org.uk](http://www.aberdeenheritage.org.uk)**

### **Further Information**

If you require any further information please contact:

**Aberdeen City Council**

**Planning & Sustainable Development  
St Nicholas House  
Broad Street  
Aberdeen  
AB10 1GY  
Telephone: 01224 523470  
Fax: 01224 636181  
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