

GUIDANCE NOTE No. 13

Safe Drying and Preparation of Roof Substrates Prior to Installation of Liquid Waterproofing Systems

1. Introduction

Where possible any newly installed roof decking should be protected, and covered from the weather to ensure drying out is not necessary. However, in the event of a roof becoming wet it is important to ensure drying out is done safely.

There are several methods of drying a roof that can be employed by the roofing contractor, but the most common method is still by use of a gas torch. This guidance note has been developed to outline the alternative methods that do not involve hot works, and signpost industry guidance for a safer system of work when using propane gas torches for the drying of roof surfaces.

2. Daily Drying Off

Rags Mops and Squeegees

All standing water should be pushed into the nearest rainwater outlet or into a perimeter gutter with the use of brushes or squeegees. Any remaining moisture should be soaked up using mops or dry rags. The substrate should then be left to dry naturally prior to the application of any material. If necessary, to speed up the process, hot air blowers could be utilised, see below.

Bowdry Roller

Bowdry is a sponge roller that is used extensively in the drying of cricket pitches but works equally as well in the roofing industry. The sponge collects the water off the roof and then deposits it into the water collection receptacle. The receptacle has to be emptied when full. This system works with relatively deep water and you could then dry the roof using the rag and mop method or allow the substrate to dry naturally. The sponge roller also allows for drying off quite rough substrates. le scarified and de-chipped substrates. However you will need to re-sponge the roller more often if you did use the Bowdry on rough surfaces.



Roof Pumps

There are various types of pumps available on the market from electric to hand powered, even solar powered versions are now available. These are ideal to place in the centre of a large ponded area whilst work continues on other areas. They generally reduce the pond to around 2mm which can then easily be dried utilising one of the methods above



Hot Air Blowers

Standing water should be removed from the roof, using one of the above methods, into the nearest drainage point. Any residual moisture would then be removed using a Hot Air "Gun"/Blower. Two popular makes are Leister and Bruhl and come in both 110v and 240v and consideration should be made to comply with site electricity supply and guidelines which could affect your choice of



equipment. Some of these machines emit considerable amounts of heat and care should be taken as in certain circumstances they could also cause deleterious materials to combust. Care should be taken at roof junctions, changes in level and around plant and roof mounted equipment.

Leaf Blowers

A conventional leaf blower can also be used to remove any residual moisture after removing any standing water. This may not be quite as fast as a hot air blower but can be more practical as leaf blowers are more readily available and are designed to be worn by the user.



Planning and Preparation

In winter conditions especially pre-planning can be extremely beneficial. If the last half hour of the working day is spent sheeting out a roof area this could enable work to commence promptly at the start of the next working day rather than drying off or melting frost and ice for a couple of hours before you can start laying product. Of course care would have to be taken in weighting the sheets to avoid wind uplift and common sense would have to apply with regard to the weather conditions, ie, polythene sheeting can become very slippery when exposed to wet or frosty conditions so extra care will be needed when removing the following day. You should not lay sheets if there was a chance of extremely windy conditions.

Use of a Naked Flame

If a naked flame is used, it is important that all operatives using a gas torch should be familiar with and understand the principles of the Safe2Torch conditions as set out by the NFRC https://www.nfrc.co.uk/safe2torch.

3. Roof Preparation

Preparation of the existing substrate is another area where hot works maybe be deemed to be the most effective method but there are other safer methods that should be exhausted first;

Preparation of Existing Roofing Felt

Existing felt surfaces that are badly cracked, degraded or where blistering has occurred, should be locally removed back to a sound, straight cut, well adhered edge and replaced with suitable self-adhesive felt or similar. This should be firmly adhered and checked for any peel back. Alternatively, blisters can be star cut to release any moisture, dried out using a rag and re-adhered to the substrate using a suitable cold applied glue.

Ensure the repaired and remaining felt is correctly laid and/or suitably adhered to provide a smooth and level surface for treatment. Exercise all necessary care when cutting. Brush away excess grit from mineral surfaces.

Preparation of Existing Asphalt

Inspect the asphalt. Any gas blisters, slump or sag and damaged asphalt should be removed and any significant cracks filled. Use an appropriate polymer modified mortar or other suitable approved compatible material to carry out repairs to these areas. Repairs are to be allowed to cure prior to application.

Ensure the repaired and remaining asphalt is correctly laid and/or suitably adhered to provide a smooth and level surface for treatment. Exercise all necessary care when cutting.

Unavoidable use of a Naked Flame

If a naked flame is used, it is important that all operatives using a gas torch should be familiar with and understand the principles of the Safe2Torch conditions as set out by the NFRC https://www.nfrc.co.uk/safe2torch.

4. Summary

The Liquid Roofing & Waterproofing Association will always promote cold applied methods as best practice, however we do recognise that the use of a naked flame is the most common method.

We have pledged our support to the NFRC's Safe2Torch campaign which offers guidance on a safe system of work when using propane gas torches for the application of roofing membranes and the drying of roof surfaces



For more information on this, please visit <u>https://www.nfrc.co.uk/safe2torch</u>.

Our individual manufacturer members also have their own views and methods of working and should be consulted on an individual basis at specification stage.

LRWA was founded in 1979, and consists of the UK's leading manufacturers of liquid roof coatings and related material suppliers. It aims to raise awareness about the technical and financial benefits of specifying liquid applied roofing systems and to establish both product and installation standard to ensure optimum performance is achieved; to this end LRWA has been involved in the writing of European Technical Approvals as the official body in conjunction with the BBA and EOTA.

Whilst every effort has been made to ensure the accuracy of the information contained in this publication, it must be emphasised that the Association has itself not verified the information by independent testing: for this reason and because the Association has no control over the precise circumstances in which it will be used the Association, its officers, employees and members can accept no liability arising out of its use, whether by members of the Association or otherwise. The publication is of a technical nature only and makes no attempt to state or conform to building regulations or other legal requirements; compliance with these must be the individual user's own responsibility.