

BIOSOLAR MAINTENANCE GUIDE

A GUIDE TO AXTER BIOSOLAR
SYSTEM MAINTENANCE



BIOSOLAR ROOF

Biosolar roof maintenance guide

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Maintenance, conducted by qualified personnel, will ensure the initial establishment and continued health of the green roof system. It is strongly recommended that the installing contractor remains responsible for the maintenance of the green roof during this establishment stage (between 12 - 15 months) and prior to the assignation of maintenance duties to the building owner's representative. Maintenance contractors with specialist training in green roof care should be used where possible.

All maintenance actions carried out at roof level must be in full compliance with the appropriate Health and Safety regulations, and particularly those specifically dealing with working at height. BS 4428:1989 – Code of practice for general landscape operations (excluding hard surfaces) and BS 7370-4:1993 Grounds maintenance - Part 4: Recommendations for maintenance of soft landscape (other than amenity turf) provide guidelines for maintenance actions.

IRRIGATION

Irrigation will be required for the initial establishment of the green roof. Take care not to over water. Once the plants are established, irrigation on extensive and bio-diverse roofs can be reduced or eliminated altogether.

FERTILISER

On extensive roofs with low nutrient growing medium, regular fertilizing will be required to provide additional nutrients to enhance germination, flowering and resistance to extremes of weather.

PLANTING REGIME

Unless the object of the green roof is to replicate the ecology of the site prior to the development, as could be the case with a bio-diverse green roof, undesirable plant species can be avoided by ensuring full coverage of the desired plant species at the outset. Alien plants should be removed before they have an opportunity to take root.

PLANT MANAGEMENT

Dead plant material should be removed to allow greater coverage. This improves the appearance of the roof as well as reducing the spread of fungal diseases. On bio-diverse roofs this material could be left to create habitat for wildlife.

In the areas around the panels any planting species which may overgrow should be removed and special attention should be given to maintaining a minimum of 200mm gap between the bottom of the panel and the vegetation.

BIOSOLAR MOUNTING MAINTENANCE

The Biosolar mounting system requires minimal maintenance however a visual inspection should take place to ensure that;

- » The substrate is still at the required depth to maintain the designed ballast amounts.
- » Neither the fixings or mounting has been damaged and are still secure.
- » No movement of the panels or the mounting has occurred.
- » Any overgrowth of the vegetation through the mounting or fixings is removed.

MAINTENANCE PROGRAMME

After installation of vegetation on an Axter extensive or bio-diverse green roof, two visits should be made:

- » The first a month later to ensure that the vegetation is in a good condition and to observe any anomalies,
- » The second three to six months later to verify the root growth and to effect any reinstatement that may be necessary.

After this initial maintenance, it is recommended that at least two maintenance visits are made to the roof each year, the first in early spring and the second in late autumn, to ensure that leaf fall is not adversely affecting drainage performance.

The following table gives an indicative work plan during installation and for each subsequent visit.

GENERAL MAINTENANCE FOR ALL GREEN ROOFS	DURING INSTALLATION	STANDARD MAINTENANCE
Remove all vegetation and debris from rainwater outlets, walkways and on sterile areas. Additional pebbles or gravel should be added to the vegetation barrier if movement or settlement has occurred.	✓	✓
Manually remove any herbaceous material that may be detrimental to waterproofing.	✓	✓
Remove leaves that may stifle vegetation and block rainwater outlets, although some leaf litter may be beneficial to a bio-diverse environment.	✓	✓
Manually remove any aesthetically displeasing vegetation which may affect waterproofing membranes (e.g. grass).		Optional
Minimum number of maintenance visits per year		2

ROOF MAINTENANCE PROCEDURES

- » Ensure safe access can be gained to the roof and that, when working at roof level, safety harness attachment points and man safe systems are used where provided and that Health and Safety Procedures are respected.
- » Rainwater outlets, chutes, gutters and inspection chambers to be kept free from debris and leaves. All downpipes should be kept unblocked so that water can flow freely.
- » Check mastic sealant and mortar pointing for degradation and repair or renew as required.
- » Check that protective metal flashing or termination bars remain securely fixed in place.
- » Paving slab walkways and promenade tiles should remain securely fixed and in good condition.
- » Plant or equipment on the roof should be positioned on suitable supports and fixings not allowed to penetrate the waterproofing. In addition, maintenance to adjoining areas should be carried out without causing damage to the roof waterproofing.
- » Any signs of damage or deterioration to the roof waterproofing should be reported to Axter Ltd immediately.
- » Contact Axter Ltd for advice on works or alterations that may affect the integrity of the waterproofing and the validity of the Axter Guarantee.

Further information on Axter green roofs is available from Axter, tel: 01473 724056, email: technical@axterltd.co.uk. For more general advice go to www.greenrooforganisation.org



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