

AceBound UVR Resin Bound Surfacing

Base Build-Up Guidance Document

1. Introduction

- 1. Purpose:** This document serves as a comprehensive guide to the essential base build-up process required for optimal installation of AceBound UVR resin bound surfacing. Properly structured base layers ensure durability, stability, and a longer lifespan for AceBound UVR installations.
- 2. Importance of Base Build-Ups:** The quality of the base structure is crucial to the long-term performance of resin-bound surfaces. A robust base minimizes risks such as cracking, movement, and poor water drainage, all of which can compromise the integrity of the surface. With AceBound UVR, investing in a well-prepared base is vital to achieve a resilient, permeable, and visually appealing finish.

2. Key Components of AceBound UVR Base Build-Ups

- This guide introduces Ace ResiMesh and Ace Base, two proprietary materials that significantly enhance the performance and longevity of AceBound UVR surfaces.
 - Ace ResiMesh:** A high-strength reinforcement layer that prevents movement in the underlying surface, reducing the risk of cracking and extending the surface's lifespan.
 - Ace Base:** A specially formulated base material that complements AceBound UVR's permeability and strength, providing a stable and compatible foundation layer.

3. Understanding Layered Base Structure

To ensure a high-quality installation, each layer in the base build-up must fulfil a specific role. Below is an overview of the recommended layered structure.

Final Layer: AceBound UVR Resin Bound Surfacing	The AceBound UVR resin-bound layer is the finishing surface, providing the desired aesthetic and functional properties. It relies on the stability and permeability provided by the underlying layers to perform optimally. Proper base build-up ensures that this top layer remains visually appealing and durable over time.
Layer 3: Ace ResiMesh	Positioned between the Ace Base and the resin-bound layer, Ace ResiMesh provides reinforcement to further stabilize the surface, reducing movement and the likelihood of cracking. This layer distributes any potential stress across the surface, contributing to the longevity of the AceBound UVR installation.
Layer 2: Ace Base	Ace Base is a crucial layer that offers a smooth, stable, and permeable platform for the application of AceBound UVR. This layer provides both structural integrity and drainage capacity, essential for reducing pressure on the resin-bound surface. It is typically installed at a thickness of 1½ inch . Using Ace Base ensures optimal compatibility with AceBound UVR, enhancing both strength and permeability.
Layer 1: Sub-Base	The sub-base forms the foundational support and must be compacted thoroughly to provide stability. Recommended materials include Crush & Run aggregate, compacted to a depth suitable for the specific load requirements of the project. Typically, the sub-base should be a minimum of 6 inches for pedestrian areas and 7 inches for vehicular surfaces. This layer acts as the primary load-bearing support.

4. Technical Performance Metrics

To illustrate the importance of proper base build-up, we have included key performance metrics based on data collected from Ace Resin’s technical sheets. These graphs show the impact of correct base layering on various aspects of performance:

Permeability	When combined with Ace Base, AceBound UVR achieves an optimal permeability rate, allowing efficient drainage and compliance with environmental standards like the Clean Water Act. The graph on page X of the data sheet shows the flow rate improvements gained from Ace Base in comparison to standard sub-base materials.
Load-Bearing Capacity	Ace Base offers superior load distribution compared to traditional base materials. The graph on page Y illustrates the enhanced load-bearing capacity achieved with Ace ResiMesh and Ace Base, making AceBound UVR suitable for both pedestrian and vehicular applications.
Longevity	Using Ace ResiMesh reduces surface movement and minimizes cracking under stress. The data sheet on page Z highlights the significant improvement in surface stability when Ace ResiMesh is incorporated, prolonging the life and aesthetic quality of the AceBound UVR surface.

5. Installation Best Practices

Following recommended installation practices for each layer is essential to achieve the intended results:

Correct Thickness	Each layer should be applied according to specified thickness guidelines. The sub-base should meet project-specific load requirements, while Ace Base is typically installed at 50mm and Ace ResiMesh directly beneath the resin layer.
Compaction and Stability	Proper compaction of the sub-base and Ace Base layers ensures a stable and supportive foundation. Use appropriate equipment to achieve uniform compaction.
Mesh Placement	Position Ace ResiMesh with care to cover the entire surface area beneath the resin layer. This will maximize its reinforcement properties, effectively reducing stress and preventing surface movement.

6. Compliance and Standards

Proper base build-up is key to ensuring compliance with relevant standards for resin-bound surfaces. AceBound UVR installations that follow these guidelines are designed to meet ADA accessibility requirements and Clean Water Act regulations, as well as provide environmentally friendly, permeable surfacing solutions for a variety of applications.

7. Summary and Benefits

The advantages of a well-prepared base structure for AceBound UVR installations include:

Increased Durability	Enhanced resistance to movement, cracking, and environmental wear.
Superior Permeability	Ace Base and ResiMesh promote optimal drainage, reducing water pooling and contributing to environmental compliance.
Extended Lifespan	Proper base layering improves structural stability and preserves the aesthetic appeal of AceBound UVR over time. Ace Resin is committed to providing quality products that enable long-lasting, compliant, and sustainable surfaces. By following these guidelines, contractors and architects can achieve the best possible performance from AceBound UVR resin-bound surfacing.

Appendix

- **Graphs & Data Sheets:** For specific data points, refer to the following pages in the Ace Resin technical sheets.
- **Additional Resources:** For further guidance on Ace Resin’s installation techniques, please contact our support team or refer to our online resources.