



# TEXTUROCK UV STONE BINDER

TEXTUROCK UV Stone Binder is a premium 100% UV stable binder designed for creating exquisite decorative stone finishes. With its distinctive high-gloss finish, it excels in diverse environmental conditions, ensuring durability across different climates. This versatile binder is perfect for securely binding stone carpet overlays and permeable stone toppings, making it an ideal choice for a variety of applications.

## PRODUCT NAME

TEXTUROCK UV Stone Binder

## PRODUCT DESCRIPTION & USE

TEXTUROCK UV Stone Binder is a premium 100% UV stable binder designed for creating exquisite decorative stone finishes. With its distinctive high-gloss finish, it excels in diverse environmental conditions, ensuring durability across different climates.

This versatile binder is perfect for securely binding stone carpet overlays and permeable stone toppings, making it an ideal choice for a variety of applications.

## ADVANTAGES & LIMITATIONS

### ADVANTAGES

- Offers a transparent, durable and resilient decorative finish
- Can be mixed from 15:1 to 20:1 by weight of aggregate to binder
- Compared to other technologies, this solution offers significant long-term cost-effectiveness

### LIMITATIONS

- If the base surface is compromised, exhibiting signs of damage such as crumbling, corrosion, or the presence of efflorescence or if it is potentially contaminated with substances like petrol, oil or asphalt, corrective measures must be taken
- Elevated humidity levels and moist conditions, particularly with stones retaining residual moisture, can expedite the curing process and diminish available working time.
- Given the requirement for skilled application techniques, this solution may not be suitable for do-it-yourself (DIY) projects

## COLOUR

Transparent coating in cured film.

## APPLICATION & USE

### SITE & MATERIAL CONSIDERATIONS

Ensure the surrounding environment and substrate maintain temperatures at or above 5°C (41°F) during application. Dry weather conditions are recommended for exterior applications. Component A and Component B (Resin and Crosslinker) should ideally be within the 10-30°C (41-86°F) temperature range before application.

The aggregate used must always be clean and dry, as impurities can significantly impact not only the aesthetic finish but primarily the cohesion and mechanical properties of the final stone carpet. It's advisable to cleanse the aggregate thoroughly, allowing it to properly drain and dry to eliminate impurities.

For applications on vertical surfaces, suitable formwork is essential. To avoid adhesion of the stones to the formwork, it is recommended to apply an appropriate separator to the formwork surface.





# TEXTUROCK UV STONE BINDER

## SURFACE PREPARATION

Ensure new concrete has been left to cure for at least 28 days. Eliminate any oil or grease residues using an appropriate surface degreaser. Thoroughly remove all curing agents, bond breakers, and foreign impurities.

Mechanically dislodge any laitance or weak and crumbling surfaces, then prepare the substrate through diamond grinding, shot blasting or water jetting to attain a Concrete Surface Profile (CSP) of 2 or higher.

Make sure to eliminate all dust before applying the material. For more detailed instructions and guidance on surface preparation, refer to the "Alluvius Technical Bulletin SP-1"

## MIXING

Combine two parts of Component A with one part of Component B by volume (2:1 v/v) and mix using a slow-speed drill maintaining a speed below 300 RPM for two minutes until a uniform mixture is achieved.

After achieving a homogeneous blend of resin and crosslinker, transfer the mixture to an appropriate mixing device, such as a concrete mixer or Hippo-style mixer. At this stage, add the stone and continue mixing for an additional 3-4 minutes, or until the stone is fully saturated with the resin mixture.

Once the mixing process is complete, relocate the material to a wheelbarrow, making it ready for transport to the designated application area.

- Typical mix design is 5 liters (1.33 gallon) of mixed resin (3.33 liter A to 1.33 liter of B) to 75 kg (165 lbs) of stone.
- Mix design by weight is typically 15:1 to 20:1 stone/aggregate to binder.

For more detailed instructions, techniques, and guidance on mixing, refer to the "Alluvius Technical Bulletin: Mixing of Multiple Component Alluvius Polymeric Materials".

## APPLICATION

To commence, apply TEXTUROCK UV Stone Binder directly onto the surface at a recommended coverage rate of 2.5 to 4 m<sup>2</sup> per liter (100-160 sqft per gallon). Ensure that the primed area does not exceed the application capacity of the team managing the stone/aggregate and binder mixture.

This involves a wet-on-wet application method, where the primer is applied directly onto the substrate and the stone binder mixture is subsequently applied to the primer.

After applying the surface primer, start by distributing the mixture of TEXTUROCK UV Stone Binder and stone/aggregate evenly over the primed surface with a gauge rake or steel rake. For a uniform finish, utilize construction trowels for leveling.

For more expansive areas, employ a straight edge to achieve a smooth finish. Treat larger areas with the same dilation procedures used for concrete surfaces.





# TEXTUROCK UV STONE BINDER

## COVERAGE AND CONSUMPTION RATE

The consumption of the product relies on both the thickness of the pebble/stone layer and the size of the aggregate.

Estimated usage per square meter (approximately 10.76 square feet) including the aggregate:

LAYER THICKNESS	RESIN (COMPONENT A) AND CROSSLINKER (COMPONENT B) CONSUMPTION	4-8MM (1/8TH"- 5/16TH") AGGREGATE CONSUMPTION
1 cm (0.39 inches)	800 ml (0.21 gallon)	16 kg (35 lbs)
2 cm (0.79 inches)	1.6 liter (0.42 gallon)	32 kg (70 lbs)
3 cm (1.18 inches)	2.4 liter (0.63 gallon)	48 kg (105 lbs)
4 cm (1.58 inches)	3.2 liter (0.84 gallon)	64 kg (140 lbs)
5 cm (1.96 inches)	4 liter (1.05 gallon)	80 kg (175 lbs)

Alternatively, the following are the consumption rates converted into the Imperial measurement system, designed for coverage over an area of 100 square feet:

LAYER THICKNESS	RESIN (COMPONENT A) AND CROSSLINKER (COMPONENT B) CONSUMPTION	1/8TH"- 5/16TH" (4-8MM) AGGREGATE CONSUMPTION
0.5 inches (1.27 cm)	2.45 gallons (9.26 liter)	410 lbs (186 kg)
1 inch (2.54 cm)	4.9 gallons (18.52 liters)	820 lbs (372 kg)
1.5 inches (3.81 cm)	7.35 gallons (27.78 liter)	1230 lbs (558 kg)
2 inches (5.08 cm)	9.8 gallons (37.04 liter)	1640 lbs (744 kg)

\*Please note, these figures are approximations and actual consumption may vary depending on specific conditions and the size of the aggregate used.

The thickness of the recommended pebble/stone layer varies according to the type of area and the anticipated traffic intensity it will encounter. For instance, a residential pool deck might only necessitate a minimum thickness of 1 cm (0.4 inches). In contrast, residential driveways may require a thickness ranging from 2 to 2.5 cm (0.8-1 inches) considering the increased load.

For commercial areas or high-volume walkways and driveways, a greater thickness might be needed to withstand heavier traffic. Always refer to local guidelines or consult a professional to determine the optimal layer thickness for your specific project.

## ENVIRONMENTAL CONDITIONS DURING INSTALLATION

TEXTUROCK UV Stone Binder should not be applied when humidity levels exceed 70%, as this significantly reduces the material's working time. The product is intended for application within a temperature range of 5°C (41°F) to 30°C (86°F).

Avoid applying the product on wet substrates or during rainy conditions. Note that darker coloured aggregates can expedite curing when exposed to direct sunlight.





# TEXTUROCK UV STONE BINDER

## CLEAN UP

Thoroughly clean all tools and materials with solutions or solvents compatible with urethane coatings, such as dibasic ester or xylene where approved. Rigorously wash hands and any exposed skin with warm water and soap.

Any clothing that comes into contact with the product should be promptly removed. Bear in mind that once the product has hardened, it can only be removed mechanically.

## PROPERTIES OF MATERIAL

PROPERTY	VALUE
Solids By Volume	100% (+/- 1%)
Solids By Weight	100% (+/- 1%)
Part A Density	1.0 – 1.1 g/cm <sup>3</sup>
Part B Density	1.1 – 1.2 g/cm <sup>3</sup>
Mix Ratio By Volume	2 Part A to 1 Part B (2:1 v/v)
Mix Ratio By Weight	2 Part A to 1.1 Part B (2:1.1 w/w)
Volatile Organic Compounds (VOC) ASTM D-2369	>10 grams per liter
Pot Life (Ca. @ 25°C)	45 minutes (100 gram mass)
Gelation Time (Ca. @ 25°C)	35 minutes
Dry to Touch Time (Ca. @ 25°C)	6 hours
Recoating Time (Ca. @ 25°C)	12 hours to 24 hours
Open to Light Foot Traffic (Ca. @ 25°C)	36 hours
Open to Heavy Traffic (Ca. @ 25°C)	5 days
Full Cure (Ca. @ 25°C)	2 weeks
Combined mix viscosity (Ca. @ 25°C) 900-1200 CPS (at time of mixing)	900-1200 CPS (at time of mixing)
Adhesion to Dry Concrete	Concrete Failure (1.5 MPa)
Adhesion to Damp Concrete	Not recommended
Shore D Hardness ASTM D-2240	55-65

## RESTRICTIONS

- Concrete substrates must be sound and have a minimum compressive strength of 21 MPa, with a minimum surface pull-off strength of 1.5 MPa.
- The substrate must be clean, removed of any standing water and free of all contaminants, e.g., dirt, oil, grease, coatings and surface treatments, etc.
- Humidity should be less than 75% at time of application.
- Substrates with moisture content equal to or greater than 4% will not be over coated without first contacting the manufacture in writing for further instructions.





# TEXTUROCK UV STONE BINDER

## STORAGE & PACKAGING

Material is to be stored from 10°C (50°F) to 35°C (95°F) and away from direct sunlight. Materials are best used within 24 months of the date of manufacture if kept in original sealed containers.

TEXTUROCK UV Stone Binder is available in 15 liter (4 gallon), 56.7 liter (15 gallon), 600 liter (159 gallon) or custom packaged upon request if purchased in volume.

## DISPOSAL

Please be aware that product containers will hold residual amounts of product and must be handled with care. Adhere to the warnings detailed on the labels at all times. All containers must be disposed of following federal, state, and local regulations to ensure responsible waste management.

## HEALTH & SAFETY PRECAUTIONS

Please consult the Safety Data Sheet (SDS) for comprehensive guidance on handling TEXTUROCK UV Stone Binder safely.

- TEXTUROCK UV Stone Binder components A and B are classified as hazardous chemicals
- During the mixing and application process, always wear gloves resistant to chemicals, eye protection, approved respiratory equipment, and protective clothing, as stipulated in the most recent version of the SDS
- Ensure that your workspace is well-ventilated and avoid inhaling any fumes
- TEXTUROCK UV Stone Binder is known to sensitize skin. If the product comes into contact with your skin, cleanse immediately with warm soapy water and change out of contaminated clothing. If dermatitis symptoms occur, seek immediate medical attention.

