

BONDING NATURAL STONE? BE AWARE OF PRODUCTION SEDIMENT

Natural stone creates luxurious, durable, and timeless ventilated façades. However, achieving a reliable adhesive bond with natural stone requires more than simply applying adhesive.

One often overlooked issue can seriously affect bonding performance: Production Sediment and Stone Dust

At TWEHA®, we regularly emphasize one essential rule for successful bonding: “Surfaces to be bonded must be dry, clean, and free of grease.”

This principle becomes especially important when working with natural stone façade panels.

The Hidden Effect of Wet-Saw Cutting.

Most natural stone slabs and veneer panels are processed using: Wet-Saw Cutting Systems

In fact, more than 95% of natural stone cutting operations are performed this way.

During the cutting process, water is continuously applied to:

- Lubricate the blade;
- Cool the material;
- Remove cutting debris.

Although this method creates clean and precise cuts, it also produces: Fine Stone Sediment and stone dust particles.

Where Does the Sediment End Up?

After processing, the visible front side of the natural stone is usually cleaned or further treated.

However, on the rear side of the panel — the side intended for bonding — a thin layer of:

- Stone dust;
- Sediment;
- Sawing residue;

often remains unnoticed.

This production residue may seem harmless, but technically it creates a major bonding risk.

Why Sediment Causes Bonding Problems

The dust or sediment layer does not form a stable part of the natural stone itself.

Instead, it behaves like a loose intermediate layer between:

- The natural stone surface;
- And the adhesive bead.

As a result: The Adhesive Bonds to the Dust — Not to the Stone

Because the sediment adheres only loosely to the substrate, the final adhesive connection becomes unreliable and weakened.

This can eventually lead to:

- Reduced adhesion performance;
- Premature bond failure;
- Long-term façade risks.

A Simple Step Prevents Major Problems

Fortunately, preventing this issue is simple.

Before applying the adhesive: Carefully Remove the Dust Layer using:

- A clean brush;
- Or suitable cleaning methods recommended by the adhesive supplier.

By removing the loose sediment first, the adhesive can achieve direct and durable contact with the actual natural stone surface.

Professional Bonding Requires Proper Surface Preparation

Natural stone is a premium façade material and deserves professional installation methods.

Successful bonding depends on:

- Clean substrates;
- Correct surface preparation;
- Proper ventilation;
- Suitable adhesive systems;
- Professional workmanship.

Even the best adhesive system cannot compensate for contamination between the adhesive and the substrate.

Reliable Bonding Starts with Attention to Detail

In bonded ventilated façades, small details often determine long-term success.

Removing production sediment may take only a few minutes, but it can make a critical difference in:

- Bond durability;
- Safety;
- Long-term façade performance.

At TWEHA®, we believe durable façade bonding starts with understanding every detail of the bonding process — including the invisible ones.

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