

PROCESSING TIME (POTLIFE) AND CURING TIME OF TWEHA® PREFIX X-TRA

Understanding Temperature, Potlife, and Performance for Optimal Bonding Results

In façade bonding applications, reliable performance starts with understanding the behavior of the bonding system during processing and curing. TWEHA® PreFix X-tra has been developed to deliver high-performance adhesion under demanding façade conditions — but like all two-component reactive systems, temperature and processing conditions play a crucial role.

Understanding potlife and curing behavior helps installers work more efficiently while ensuring maximum bonding quality and long-term façade reliability.

How TWEHA® PreFix X-tra Cures

TWEHA® PreFix X-tra is a two-component system consisting of a resin and a hardener. Once both components are mixed, a chemical reaction starts immediately.

This curing reaction is **exothermic**, meaning it generates heat during the curing process. The heat produced accelerates the curing of the product and directly influences the processing time and final strength development.

Because curing is temperature dependent, ambient conditions have a major influence on both:

- Processing time (potlife)
- Curing speed
- Time required to reach optimal strength

Potlife and Curing at Standard Temperature

The specified processing time for TWEHA® PreFix X-tra is based on an ambient temperature of approximately **21°C**.

At this temperature:

- Potlife is approximately **45 minutes**
- Optimal strength is achieved after approximately **12 hours** of curing time

TWEHA® PreFix X-tra is typically applied in thin layers using a brush or roller, allowing for controlled and efficient processing on-site.

Lower Temperatures Increase Processing Time

One of the advantages of TWEHA® PreFix X-tra is that it can also be processed successfully at lower temperatures.

For example, at **10°C**:

- Potlife increases to approximately **1 hour**
- Full curing may require **24 hours or longer**

This extended processing window can actually be beneficial for larger projects or more complex applications where additional working time is preferred.

Even at low temperatures, the product continues to perform reliably — provided that longer curing times are considered.

Higher Temperatures Accelerate Curing

As temperatures increase, the chemical reaction becomes significantly faster.

At temperatures above **25°C**, the potlife of TWEHA® PreFix X-tra becomes considerably shorter, meaning installers must work more quickly after mixing the components. Careful planning and controlled batch sizes are therefore essential during warm weather conditions.

Curing Stops Below Freezing Temperatures

An important characteristic of TWEHA® PreFix X-tra is that the curing process temporarily stops when temperatures fall below freezing point.

However, this does not damage the product.

Once the temperature rises again above zero, the curing process simply continues automatically. This offers additional flexibility during colder weather conditions and seasonal façade projects.

Mixed Volume Influences Potlife

Not only temperature affect processing time — the volume of mixed material also plays a major role.

The larger the mixed quantity of TWEHA® PreFix X-tra, the more heat the product generates internally. Increased heat generation accelerates the chemical reaction, resulting in a shorter potlife.

Because TWEHA® PreFix X-tra develops a relatively high amount of heat, large mixed volumes can become extremely hot — reaching temperatures up to **80°C** and potentially even producing smoke.

Practical Tip: Use a Paint Tray for Longer Working Time

To optimize processing time after mixing, it is recommended to immediately pour the mixed material into a paint tray.

Why?

Because the larger exposed surface area allows heat to dissipate more effectively, reducing heat buildup inside the material. This provides:

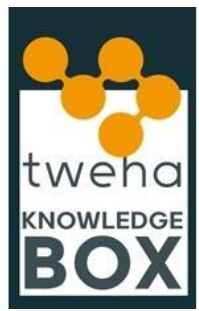
- A longer workable potlife
- Better control during application
- More consistent processing behavior
- Improved handling on-site

This simple step can significantly improve workability, especially in warmer conditions.

Reliable Performance Under Real Site Conditions

TWEHA® PreFix X-tra has been developed specifically for professional façade bonding applications where consistent performance, durability, and reliability are essential.

By understanding how temperature and volume influence curing behavior, installers can optimize application conditions and achieve maximum bonding performance under virtually all site conditions.



Technical Expertise Makes the Difference

At TWEHA®, we support façade professionals not only with advanced bonding systems, but also with practical technical expertise and application guidance.

Would you like advice on processing conditions, curing behavior, or façade bonding applications with TWEHA® PreFix X-tra?

Our specialists are ready to help you achieve safe, efficient, and high-performance bonding results.

TWEHA®, 2026