



Glasroc® X performances preserved after 12 months exposure

Executive Summary

This white paper presents evidence demonstrating that Glasroc® X maintains its key performance properties after 12 months of direct exposure. The conclusions are supported by global field exposure tests and accelerated aging tests performed according to EOTA technical procedures and followed by CSTB in France, based on EAD 090120-00-0404 / annex L.

1. Introduction

Onsite and offsite construction flexibility is essential. Schedules shift, weather interrupts, suppliers change - yet the façade system must remain reliable. Construction market often requires external sheathing boards to remain exposed for extended periods before receiving the final treatment. Ensuring that these materials maintain integrity during such exposure is crucial for façade durability. Glasroc® X is a glassmat gypsum board engineered for enhanced moisture resistance and reliable stability in exterior applications, offering the needed flexibility: up to 12 months of exposure without compromising performance.

2. Glasroc® X overview

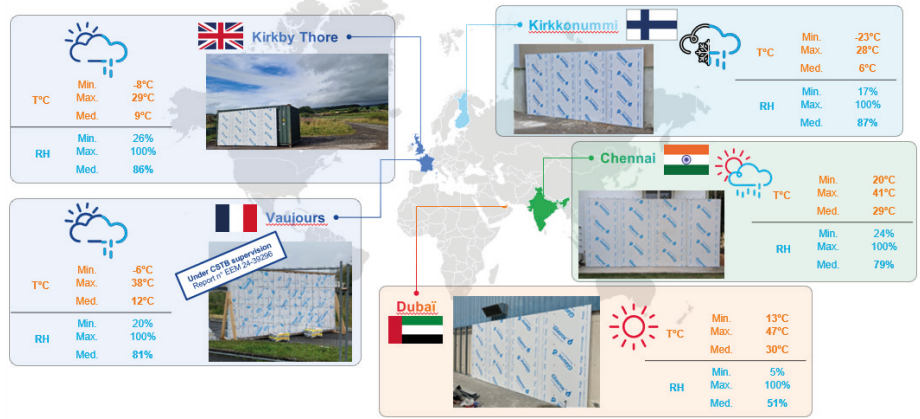
Glasroc® X is Saint Gobain's exterior gypsum board designed for lightweight façade systems and engineered to withstand demanding environments. Its glassmat surface, UV resistant coating, and reinforced gypsum core provide moisture resistance, dimensional stability, A1 fire reaction and UV durability, even when exposed to extreme weather conditions. Glasroc® X can be used either as a sheathing board and/or as a render carrier board.

3. Study objective

The objective is to assess whether Glasroc® X can remain exposed for up to 12 months without compromising mechanical strength, visual appearance and integrity, or regulatory compliance.

4. Global 12 months field exposure tests

Glasroc® X was tested in the UAE (Dubai), in the UK (Kirkby Thore), in France (Vaujours), in India (Chennai), and Finland (Kirkkonummi), covering desert, temperate, monsoon, and cold climates. Testing showed stable mechanical performance (either flexural or fixing strength), minimal moisture resistance change, and preserved surface integrity, ensuring good render adhesion when applied on exposed boards.

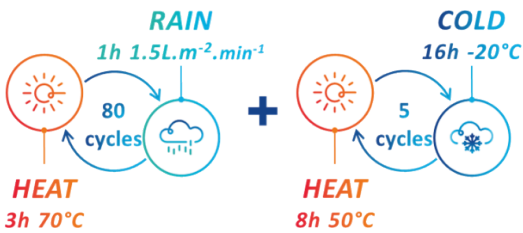


Glasroc® X was installed in exposed areas in different locations with a variety of temperatures and relative humidity, during 12 months.

5. Accelerated aging tests (EOTA Durability test, monitored by CSTB in France)

CSTB monitored EOTA-based accelerated aging cycles. Cycles are specified in EAD 090120-00-0404 / annex L. It consists in 25 days of both high and low temperatures and heavy water sprays. Post-test board performance remained constant, well above normative requirements.

CSTB's involvement ensures that the testing was conducted impartially and in accordance with rigorous scientific protocols. CSTB provides a factual summary of observations through report n°EEM 25-45804.



Standards

Performances were measured as per the following standards:

STANDARD	TEST
EN 15283-1	Flexural strength
EN 520	Density, surface density
DT 081-1	Surface hardness
	Total water absorption
EN 520	Surface water absorption (face and back)
DT 081-1	
EN 13963	Liner / Core adhesion
	Render / Board adhesion
EN 1383	Screw pull-through resistance

6. Comparative analysis

Convergence between field and accelerated aging results confirms the robustness of Glasroc® X under 12 months exposure. Glasroc® X performances are well above standard requirements and the board aspect is also fully preserved.

The following performances are preserved both in real field and accelerated ageing tests.

Performances	Tested & proven
Flexural strength	✓
Surface hardness	✓
Impact resistance	✓
Total water absorption	✓
Board integrity	✓
Render & board adhesion	✓
Screw pull-through resistance	✓
Aesthetic aspect of the board	✓

Conclusion

Evidence confirms that **Glasroc® X can remain exposed for up to 12 months without performance degradation**, meeting and exceeding relevant standards. It delivers the flexibility projects need while guaranteeing long term performance.

What this means for your project

Glasroc® X offers schedule freedom, reduced site risk, reliable façade durability, and peace of mind for building owners. It reduces the need for temporary protections, avoids rework costs, and ensures long term performance even with extended exposure before final treatment, whatever the finishing on top of the board (direct render, ETICS, ventilated façade, sidings...).