

# **Durability Test Results**

#### **Fire Resistance Test:**

**Test Method:** SIST EN 13823:2020 – Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item.

The reaction to fire behavior is classified as: **B-s1, d0** 

#### Description:

- **B**: The material is classified as flame-retardant. This means that flame spread is limited and the material demonstrates strong resistance to fire.
- **s1**: Smoke production is very low. During a fire, the smoke generated is minimal, which helps maintain visibility in escape routes.
- **d0**: No flaming droplets or particles are emitted. When burning, the material does not release hazardous droplets or particles into the surroundings.

This fire resistance test was conducted on July 8, 2021 by the Slovenian National Building and Civil Engineering Institute, Department for Building Physics. The institute is a member of the European Group of Organisations for Fire Testing, Inspection and Certification (EGOLF).

### **Climate Resistance Test:**

Test Phase	Temperature (°C)	Humidity (%)	Duration (hours)
Samples are placed in a heated humidity chamber.	40 ± 2	97 <u>+</u> 3	6
Heating in the humidity chamber is turned off.	40 ± 2	97 ± 3	2
Samples are transferred to a freezer.	negative (45 $\pm$ 3)	not regulated	3
Samples are then transferred to a weather resistance test chamber, where they are exposed to UV radiation (290–400 nm / 35±5 W/m²) and subjected to a 3-17 cycle (3 minutes of water spray every 17 minutes).	60 <u>±</u> 3	not regulated	7
Samples are exposed to open air.	from 15 to 30	no more than 80	6

The time between each phase does not exceed 10 minutes.

## Evaluation of external appearance after 125th, 130th, and 135th cycles of climate tests:

	Number of Cycles and Indicators			
Name of the indicator	125 / 10 years	130 / 13 years	135 / 17 years	
Damage Assessment:				
-Cracking	no	no	no	
-Abrasion	no	no	no	
-Layer separation	no	no	no	
-Wrinkling	no	no	no	
-Blistering	no	no	no	
External Appearance Evaluation:				
-Change in Gloss	no	no	no	
-Dirt Retention	no	no	no	
-Chalkiness	no	no	no	
-Color Fading:				

According to the results of the accelerated climate test, the material retains its properties for at least 17 years under moderate climate conditions.