



KERAMA PVC DECKING AND CLADDING

UV WEATHERING PERFORMANCE REPORT

Product

Kerama PVC Decking & Cladding System

Test Purpose

The purpose of this test was to evaluate the colour stability and weathering resistance of the Kerama PVC Decking & Cladding System under accelerated ultraviolet (UV) exposure conditions.

Accelerated weathering testing is designed to simulate long-term outdoor exposure by subjecting the material to cycles of UV radiation, elevated temperatures, condensation, and moisture.

Test Conditions

The material was exposed in an accelerated UV weathering chamber under the following conditions:

Parameter	Value
UV Exposure Temperature	60°C
Condensation Temperature	50°C
UV Cycle	8 Hours
Water Spray Cycle	15 Minutes
Condensation Cycle	3.75 Hours
Total Exposure Time	1,518 Hours

Colour Stability Measurement

Colour change was measured using the CIELAB colour system.

The overall colour variation is expressed as ΔE (Delta E), which represents the total visible colour difference between the original sample and the weathered sample.

Delta E Classification

ΔE Value	Visual Interpretation
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ΔE Value	Visual Interpretation
< 1.0	Virtually invisible to the human eye
1.0 – 2.0	Slight difference, noticeable only by experts
2.0 – 3.0	Minor visible colour change
3.0 – 5.0	Visible colour change
> 5.0	Significant colour degradation

Test Results

Exposure Time (Hours)	ΔE
95	0.16
257	0.48
420	0.51
585	0.34
708	0.57
869	0.23
1032	0.29
1195	0.39
1358	0.53
1518	0.98

Final Result

Total Colour Change (ΔE) after 1,518 hours: 0.98

Performance Assessment

The Kerama PVC Decking & Cladding System demonstrated exceptional colour stability throughout the accelerated weathering test.

After 1,518 hours of UV exposure, the measured colour difference remained below ΔE 1.0.

A ΔE value below 1.0 is generally regarded as visually imperceptible under normal viewing conditions and indicates excellent resistance to fading and weathering.

Key Benefits

- ✓ Excellent UV resistance
- ✓ Outstanding colour stability



- ✓ Minimal fading over time
- ✓ Suitable for long-term exterior applications
- ✓ Designed for demanding architectural environments

Conclusion

Based on the accelerated UV weathering results, the Kerama PVC Decking & Cladding System exhibits outstanding resistance to ultraviolet degradation and colour fading.

The final measured colour change of ΔE 0.98 after 1,518 hours of exposure demonstrates a high level of long-term aesthetic durability and supports the product’s suitability for exterior façade and decking applications.

This document is intended as a technical summary of accelerated weathering test results. Full laboratory reports are available upon request.

UV WEATHERING TEST RESULTS – KERAMA CLADDING								
TEST STANDARD ASTM G154 (QUV)			TEST EQUIPMENT UV Weathering Tester		SAMPLE Kerama PVC Cladding		TOTAL EXPOSURE TIME 1,518 HOURS	
TEST CONDITIONS								
 UV EXPOSURE TEMPERATURE 60°C	 CONDENSATION TEMPERATURE 50°C		 UV CYCLE 8 HOURS		 WATER SPRAY 15 MINUTES		 CONDENSATION 3.75 HOURS	
MEASURED VALUES				COLOUR CHANGE (CIELAB)				
SAMPLE ID	L*	a*	b*	ACCUMULATED TEST TIME (HOURS)	ΔL*	Δa*	Δb*	ΔE* (TOTAL COLOUR CHANGE)
6432	26.70	-0.20	-1.34	95	0.12	0.08	0.07	0.16
6527	26.82	-0.12	-1.27	257	0.47	0.07	0.03	0.48
6689	27.17	-0.13	-1.31	420	0.51	0.04	0.03	0.51
6852	27.21	-0.16	-1.31	585	0.31	0.11	0.10	0.34
7017	27.01	-0.09	-1.24	708	0.56	0.12	0.04	0.57
7140	27.26	-0.08	-1.30	869	0.11	0.13	0.15	0.23
7301	26.81	-0.07	-1.19	1,032	-0.21	0.11	0.16	0.29
7464	26.49	-0.09	-1.18	1,195	-0.35	0.10	0.13	0.39
7627	26.35	-0.10	-1.21	1,358	0.32	0.14	0.40	0.53
7950	27.68	-0.16	-1.27	1,518	0.98	0.04	0.07	0.98
FINAL RESULT				 TOTAL COLOUR CHANGE (ΔE*) AFTER 1,518 HOURS 0.98 < 1.0 Virtually Invisible 1.0 – 2.0 Slight Difference (Only Experts Notice) 2.0 – 3.0 Minor Visible Change 3.0 – 5.0 Visible Change > 5.0 Significant Change				

L, a*, b* = CIELAB colour coordinates | ΔL^* , Δa^* , Δb^* = Change in colour coordinates | ΔE^* = Total colour difference