

**Gicolor**  
S.r.l.

**Natural Exposure Test**



MRK 012-0234

**SALT LAKE**  
series



# ESPOSIZIONE NATURALE IN FLORIDA:

## Esposizione naturale

Le esposizioni naturali vengono condotte in Florida presso il sito espositivo della Atlas Weathering Service; il sud della Florida fornisce infatti un clima caldo umido e ad alto irraggiamento UV. Invecchiamento naturale: tutti i campioni vengono sottoposti all'irraggiamento naturale in Florida. L'esposizione viene effettuata, in conformità allo standard internazionale descritto nella ISO 2810, rispettando le seguenti specifiche:

- esposizione del pannello in direzione sud
- angolo di inclinazione del pannello 5°
- pannello scoperto sul retro

Al termine del periodo di esposizione, pari a 12 mesi, viene valutata la variazione di brillantezza (EN ISO 2813, con angolo di incidenza 60°) ed il cambiamento di colore  $\Delta E$  (metodo CIELAB ISO 7724/3) rispetto ai valori di partenza. Anche l'esposizione naturale viene monitorata attraverso l'invio di campioni in bianco ad invecchiamento noto.

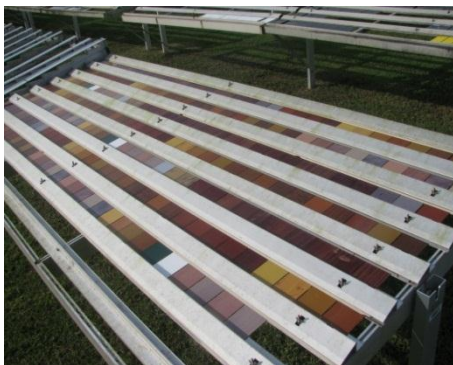


Figure: Esposizione naturale, campioni esposti all'AWSG in Florida  
Pictures: Florida Natural Exposure, test samples



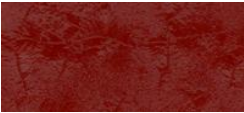



## Natural Exposure Test

Natural Exposure Tests are conducted in Atlas Weathering Service Sites – Florida. South Florida climate indeed is hot, wet and highly exposed to UV-rays. All samples are subjected to natural irradiation in Florida according to the international standard ISO 2810, i.e. complying with the following specifications:

- facing south
- tilt angle 5° from the horizontal
- open backing.

After 12 months exposure period, residual gloss (EN ISO 2813, with an angle of incidence 60°) and colour variation  $\Delta E$  (CIELAB method - ISO 7724 / 3) are measured comparing pre-test values. Even the Natural Exposure Test accuracy is verified by through the use of samples in white, whose aging behaviour is known.

ID Test Report	PROD. VERNIC	COD. FILM	PROG. N°	IMMAGINI
TR-NE-01-2014	Saltlake-001	solo base	1	
TR-NE-02-2014	Saltlake-002	solo base	2	
TR-NE-03-2014	Saltlake-003	solo base	3	
TR-NE-04-2014	Saltlake-004	solo base	4	
TR-NE-05-2014	Saltlake-006	solo base	5	
TR-NE-06-2014	Saltlake-007	solo base	6	
TR-NE-07-2014	Saltlake-008	solo base	7	
TR-NE-08-2014	Saltlake-013	solo base	8	
TR-NE-09-2014	Saltlake-014	solo base	9	
TR-NE-10-2014	Saltlake-015	solo base	10	
TR-NE-11-2014	Saltlake-016	solo base	11	
TR-NE-12-2014	Saltlake-017	solo base	12	

TR-NE-13-2014	Saltlake-018	solo base	13	
TR-NE-14-2014	Saltlake-019	solo base	14	
TR-NE-15-2014	Saltlake-020	solo base	15	
TR-NE-16-2014	Saltlake-021	solo base	16	
TR-NE-17-2014	Saltlake-022	solo base	17	
TR-NE-18-2014	Saltlake-023	solo base		



**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29187  
POWDER COATING: Saltlake-001  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 2,79  
residual gloss: 50%

**Technical Remarks**

Sufficient residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 9004)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

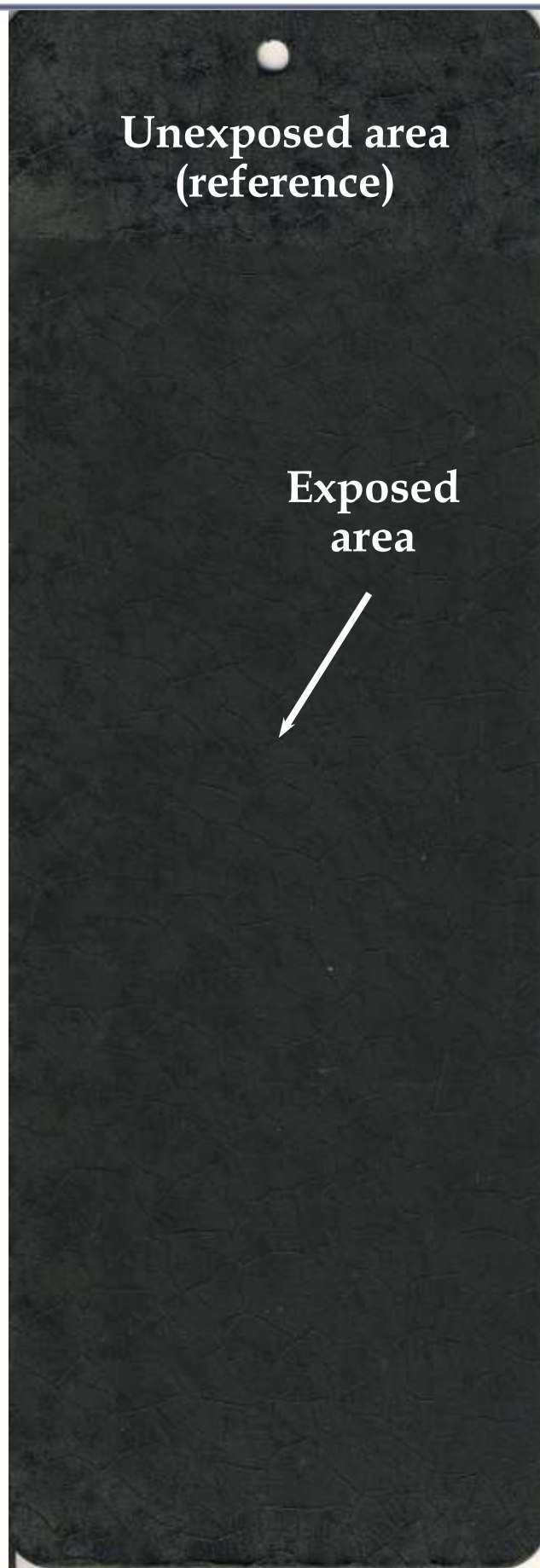
Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**







**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29188  
POWDER COATING: Saltlake-002  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 3,21  
residual gloss: 59%

**Technical Remarks**

Sufficient residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 5014)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

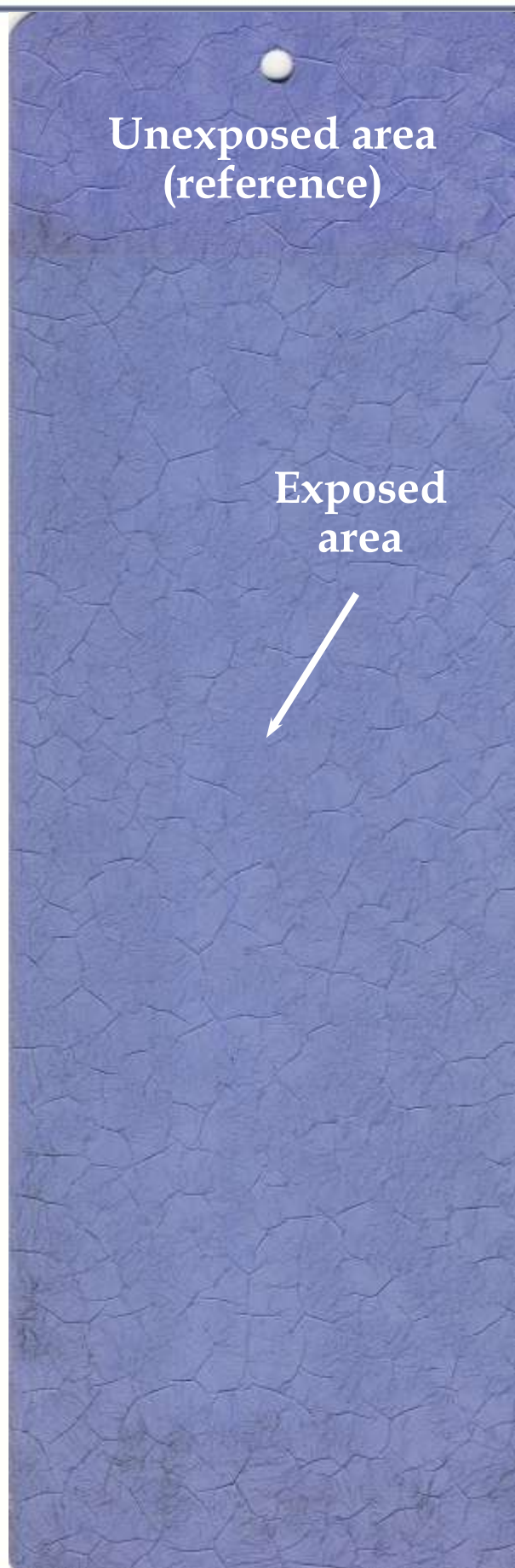
Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29189  
POWDER COATING: Saltlake-003  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 1,88  
residual gloss: 83%

**Technical Remarks**

EXcellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 3005)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

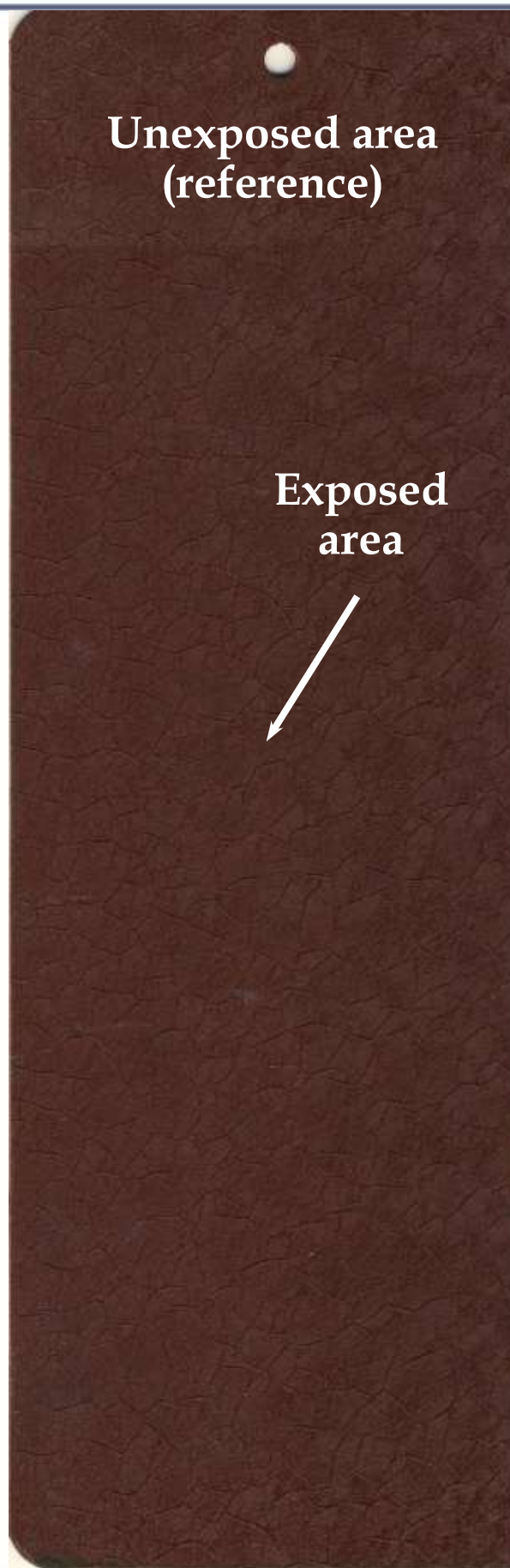
Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29190  
POWDER COATING: Saltlake-004  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): **2,17**  
residual gloss: **91%**

**Technical Remarks**

Excellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 6001)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**







**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29192  
POWDER COATING: Saltlake-006  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): **1,69**  
residual gloss: **100%**

**Technical Remarks**

Excellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 3018)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29193  
POWDER COATING: Saltlake-007  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 3,21  
residual gloss: 79%

**Technical Remarks**

Good residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 1015)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**







**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29206  
POWDER COATING: Saltlake-008  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): **2,46**  
residual gloss: **61%**

**Technical Remarks**

Good residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 6021)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).







**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29198  
POWDER COATING: Saltlake-013  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): **1,41**  
residual gloss: **67%**

**Technical Remarks**

Good residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 5004)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29199  
POWDER COATING: Saltlake-014  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 1,08  
residual gloss: 91%

#### **Technical Remarks**

Excellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 6015)

#### **Technical Opinion:**

**Suitable for OUTDOOR USE**

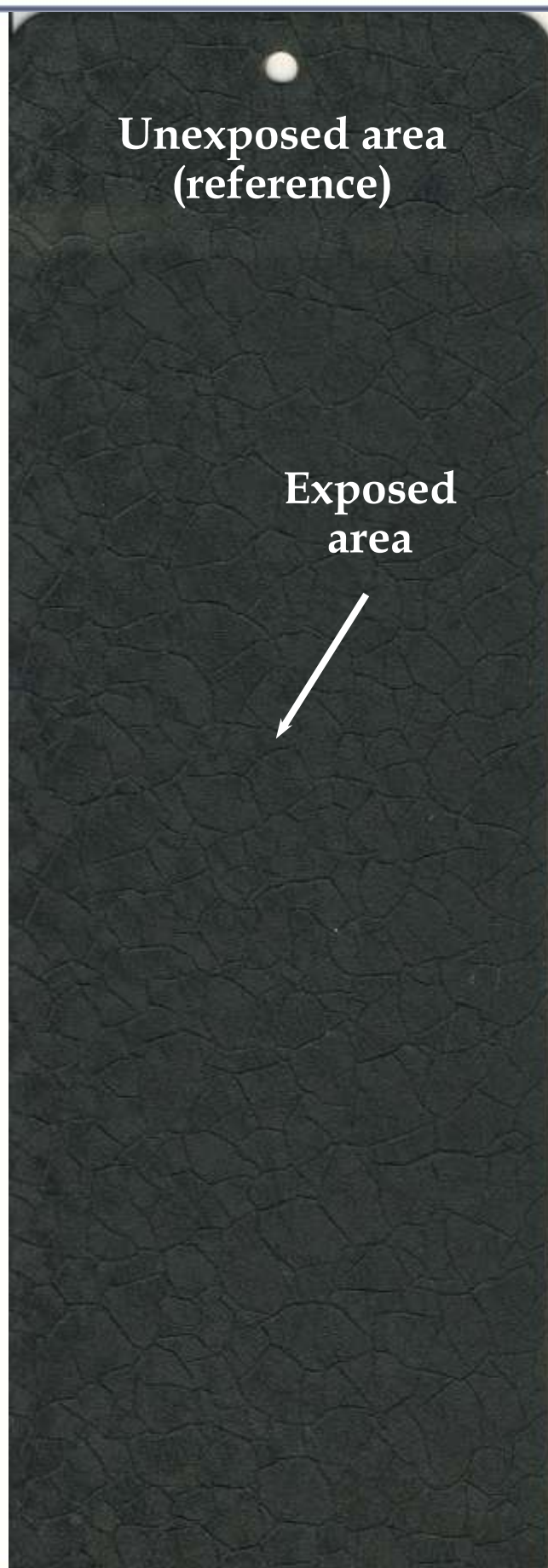
Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

#### **QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29200  
POWDER COATING: Saltlake-015  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 0,66  
residual gloss: 67%

**Technical Remarks**

Good residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 8017)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.

The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**







**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29201  
POWDER COATING: Saltlake-016  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 1,18  
residual gloss: 100%

**Technical Remarks**

Excellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 5022/4007)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

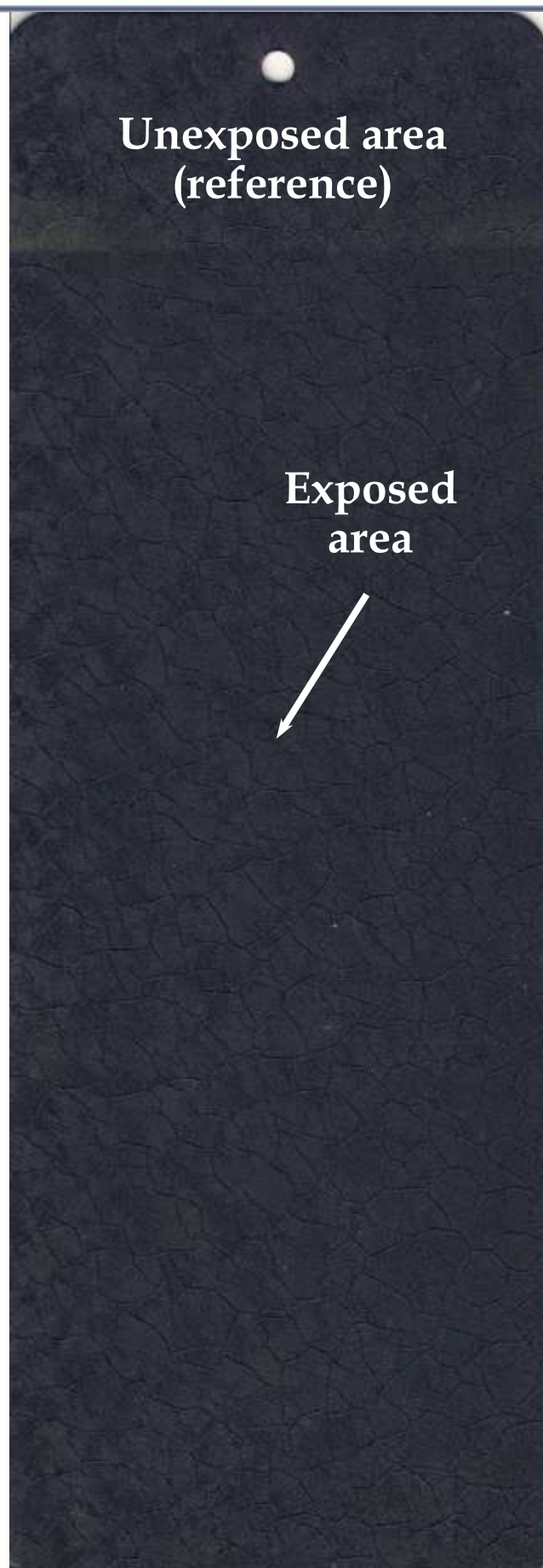
Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29202  
POWDER COATING: Saltlake-017  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 3,26  
residual gloss: 100%

**Technical Remarks**

Excellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 2001)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**







**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29203  
POWDER COATING: Saltlake-018  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): **1,41**  
residual gloss: **100%**

**Technical Remarks**

Excellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 3011)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**







**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29204  
POWDER COATING: Saltlake-019  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 1,82  
residual gloss: 77%

**Technical Remarks**

Excellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 1004)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29205  
POWDER COATING: Saltlake-020  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 1,5  
residual gloss: 52%

**Technical Remarks**

Sufficient residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 3011)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29552  
POWDER COATING: Saltlake-021  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): **2,66**  
residual gloss: **59%**

**Technical Remarks**

Sufficient residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 5003)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

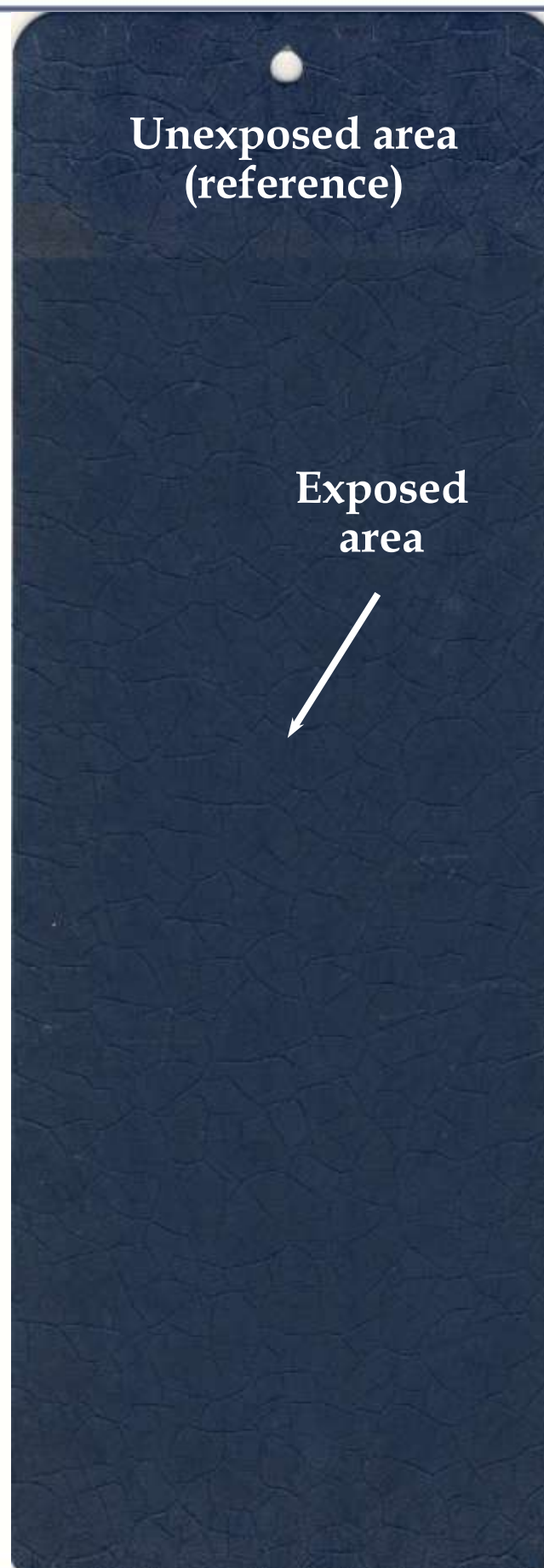
Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**







**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29207  
POWDER COATING: Saltlake-022  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 3,55  
residual gloss: 78%

**Technical Remarks**

Good residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 6018)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

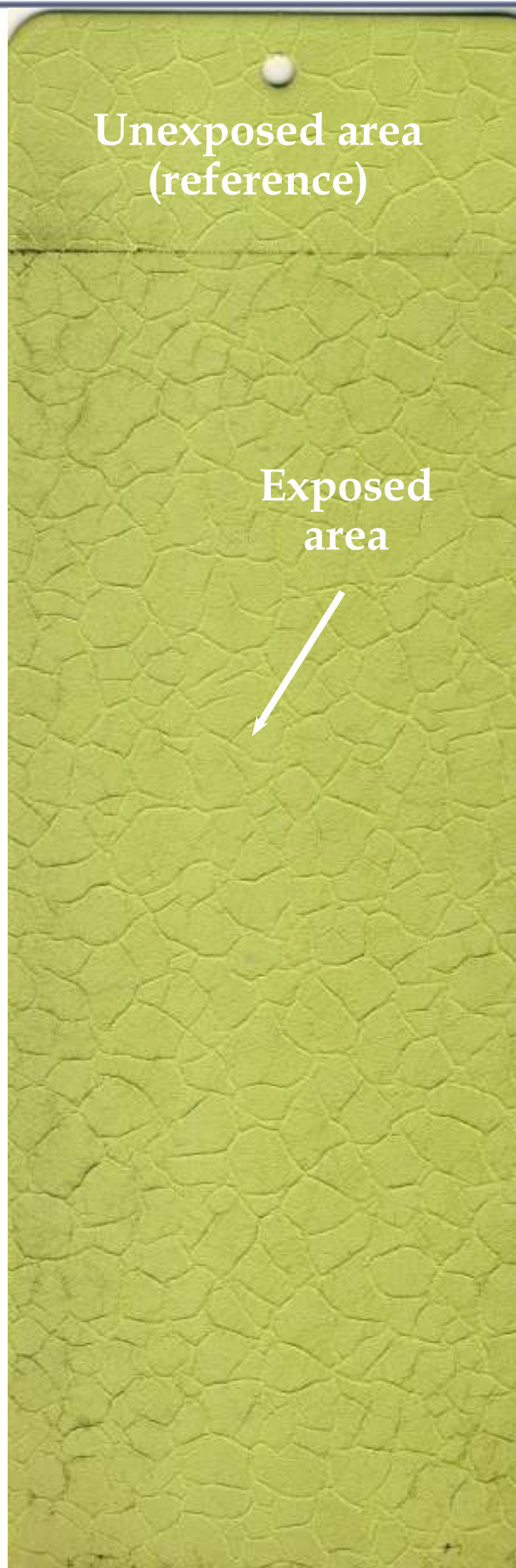
Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**





**Florida  
Test**



**Total duration:  
12 months**



**EXPOSURE PERIOD:**

**FROM: 03/04/2013**

**TO: 01/04/2014**

LAB. ID NUMBER: 29208  
POWDER COATING: Saltlake-023  
HEAT TRANSFER FILM: --  
Colour variation ( $\Delta E$ ): 4,8  
residual gloss: 83%

**Technical Remarks**

Excellent residual gloss and low colour variation ( $\Delta E$ )  
( $\pm$ RAL 5007)

**Technical Opinion:**

**Suitable for OUTDOOR USE**

Test was carried on samples prepared according to technical specifications supplied by raw materials manufacturers.

**QUALICOAT REQUIREMENTS**

The residual gloss shall be at least 50% of the original gloss.  
The  $\Delta E$  values shall not exceed the maximum values prescribed in the annexed table (see Appendix A7 of Qualicoat Specifications).

**Unexposed area  
(reference)**

**Exposed  
area**

