

# ASTM 加速老化試驗報告

## NELSON TESTING LABORATORIES

*Construction Materials*  
1210 REMINGTON ROAD  
SCHAUMBURG, ILLINOIS 60173 USA  
Phone (847) 882-1146 Fax (847) 882-1148

www.nelsontesting.com

February 15, 2007

Mr. Ulrich Bethge  
KeimFarben  
Keistrasse 16  
86420 Diedorf  
Germany

### REPORT OF TESTS

**SUBJECT:** **Accelerated Weathering Testing**

**PROJECT:** **KeimFarben - Plant Research/Certification Program**

**TEST METHODS:** **ASTM G154-04 "Standard Practice for Operating Fluorescent light apparatus for UV exposure of nonmetallic materials"**

**PRODUCT IDENTIFICATION:** **Keim Royalan - White**

**TEST SCOPE:** The test method covers the basic principles and operation procedures for using fluorescent ultraviolet and condensation apparatus to simulate the deterioration caused by sunlight and water as rain.

**TEST SPECIMENS:** Three concrete masonry unit specimens were constructed and used as the substrate prisms for the application of the Keim Royalan Coating product.

**TEST PROCEDURE:** Three coated test specimens were placed in the test chamber and subjected to alternating cycles of four (4) hours of ultraviolet (UV) lights at 60° C and then four (4) hours of condensation at 50° C. The duration of the test is a period of twelve (12) weeks.

**TEST START DATE:** November 15, 2006

# NELSON TESTING LABORATORIES

*Construction Materials*

1210 REMINGTON ROAD  
SCHAUMBURG, ILLINOIS 60173 USA  
Phone (847) 882-1146 Fax (847) 882-1148

www.nelsontesting.com

February 15, 2007  
KeimFarben – Royalan Test Program  
Page 2 of 2

## ASTM G 154 (continued)

### TEST RESULTS:

Visual Observation  
Accelerated Weathering Test

#### Number of Hours of Exposure

168/1 week	No crazing, cracking, chipping, flaking, chalking or any other deterioration of the materials
336/2 weeks	No crazing, cracking, chipping, flaking, chalking or any other deterioration of the materials
504/3 weeks	No crazing, cracking, chipping, flaking, chalking or any other deterioration of the materials
672/4 weeks	No crazing, cracking, chipping, flaking, chalking or any other deterioration of the materials
1008/5 weeks	No crazing, cracking, chipping, flaking, chalking or any other deterioration of the materials
1512/9 weeks	No crazing, cracking, chipping, flaking, chalking or any other deterioration of the materials
2016/12 weeks	No crazing, cracking, chipping, flaking, chalking or any other deterioration of the materials

### SUMMARY

After 12 weeks of exposure to the ASTM G 154 test apparatus, the Keim Royalan coating showed no signs of crazing, cracking, chipping, flaking, chalking or any other deterioration.

Respectfully submitted

NELSON TESTING LABORATORIES



Mark R. Nelson  
Principal

根據 ASTM G 154 規定設備經過12周測試，KEIM  
ROYALAN室外礦物塗料並無龜裂、粉化、剝落或其他  
老化情形發生