



150 Hutt Park Road  
Gracefield, Lower Hutt  
New Zealand

PO Box 30-749  
Lower Hutt

Tel +64 4 576 6400  
0800 4 DULUX (38589)  
Orders 0800 800 424

Fax  
TSL +64 4 576 6425  
Orders/Enquiries 0800 801 424

## **Report R/2017/01:**

### **Exterior Exposure Series – Kapo Board - G/D/15/1080**

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Technical Services Laboratory – Lower Hutt

#### **EXTERIOR EXPOSURE TESTING – KAPO BOARD**

**PREPARED BY:**

Jared Bourke  
Development Chemist  
Dulux NZ

**APPROVED BY:**

Heather Goode  
Technical Manager  
Dulux NZ

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## **Background**

The following exposure series report reviews the exterior performance of three decorative systems applied to Kapo Board (supplied by Enviro Square Ltd).

**Exposure Series G/D/15/1080** refers to three Kapo board panels with the following coating system applied:

Panel 805 – 1 coat of Dulux 1 Step Primer Sealer Undercoat (Water Based) and 2 topcoats of Weathershield X10 Low Sheen White.

Panel 806 – 1 coat of Dulux 1 Step Primer Sealer Undercoat (Oil Based) and 2 topcoats of Weathershield X10 Low Sheen White.

Panel 807 – 3 coats of Dulux Weathershield X10 Low Sheen White

Note, board edges were coated using the full system as outlined above. The board backs were coated with 1 coat of the designated primer.

Exposure for this series was initiated on 10/03/2015.

## Methodology

### Exposure Series G/D/15/1080

All panels were coated on site at the Dulux Innovation Centre. Coatings were brush applied using the natural spreading rate of each product.

## Results

Series Number	Panel Number	Date Inspected	Gen# Appearance 481#1#1	Discolouration 481#1#2	Dirt Collection 481#1#3	Dirt Retention 481#1#4	Gloss 481#1#5 Washed
G/D/15/1080	805	08-Jun-15	Good	0	0	0	
G/D/15/1080	805	10-Dec-15	Good	0	0	0	
G/D/15/1080	805	10-Jan-17	Good	0	1	0	2.2, 6.8, 10.6
G/D/15/1080	806	08-Jun-15	Good	0	0	0	
G/D/15/1080	806	10-Dec-15	Good	0	0	0	
G/D/15/1080	806	10-Jan-17	Good	0	1	0	2.3, 7.5, 11.9
G/D/15/1080	807	08-Jun-15	Good	0	0	0	
G/D/15/1080	807	10-Dec-15	Good	0	0	0	
G/D/15/1080	807	10-Jan-17	Good	0	1	0	2.4, 7.1, 15.4

Series Number	Panel Number	Date Inspected	Erosion 481#1#6	Checking 481#1#7	Cracking 481#1#8	Flaking 481#1#10 Q/S	Chalking 481#1#11	Colour Change 481#1#12	Fungal Growth 481#1#13
G/D/15/1080	805	08-Jun-15	0	0	0		0	0	0
G/D/15/1080	805	10-Dec-15	0	0	0		0	0	0
G/D/15/1080	805	10-Jan-17	Not Measured	0	0	0	0	-	0
G/D/15/1080	806	08-Jun-15	0	0	0			0	0
G/D/15/1080	806	10-Dec-15	0	0	0			0	0
G/D/15/1080	806	10-Jan-17	Not Measured	0	0	0	0	0	0
G/D/15/1080	807	08-Jun-15	0	0	0		0	0	0
G/D/15/1080	807	10-Dec-15	0	0	0		0	0	
G/D/15/1080	807	10-Jan-17	Not Measured	0	0	0	0	0	0

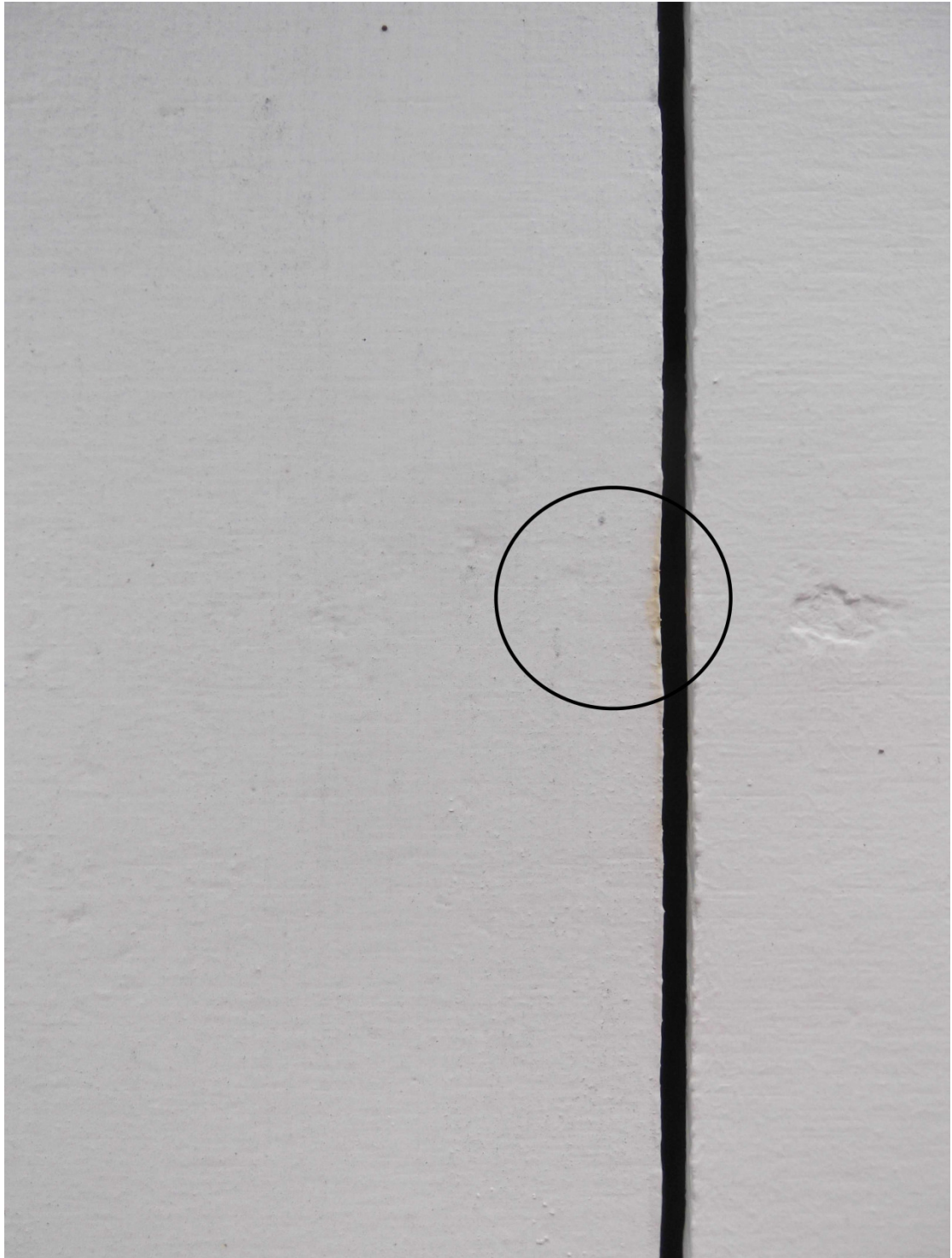
**Panels 805 – 807 after 20 months exposure:**



805



806





807

## **Discussion**

All boards associated with Exposure Series G/D/15/1080 are in good condition. There is some minor dirt collection but otherwise after 20 months exposure the boards and coating systems appear to be performing well. There is no obvious flaking, chalking, or signs of cracking. It was observed that on the edge of board 806 that there was some yellow discolouration. It was not clear whether this discolouration originated from the substrate.

## **CONCLUSION**

The following coating systems are acceptable for use over Kapo board.

1 coat of Dulux 1 Step Primer Sealer Undercoat (Water Based) and 2 topcoats of Weathershield X10 Low Sheen White.

1 coat of Dulux 1 Step Primer Sealer Undercoat (Oil Based) and 2 topcoats of Weathershield X10 Low Sheen White.

3 coats of Dulux Weathershield X10 Low Sheen White

After 20 months exposure testing the performance of all three coating systems above was comparable. No deleterious issues were observed for the substrate or coating systems that would indicate poor durability.