# Elcometer 139 Amine Blush Swab Test Kit


When using amine cured epoxy resin coatings in a multi-layer system, if the original coating cures in a low ambient temperature and/or in a high humidity environment, problems - referred to in the industry as amine blush can develop. The presence of amine blush can lead to inter-coat adhesion failures if the film is re-coated.

The Elcometer 139 Amine Blush Swab Test Kit is a rapid colorimetric test designed solely for the use in the quick and immediate identification of amine blush (carbamates) on the surface of coatings using surface swabs. The presence of amine blush is indicated by a visual change of colour of the test solution when compared with a control sample.

## Technical Specifications

| Part Number | Description |
|---|---|
| E139----A | Elcometer 139 Amine Blush Swab Test Kit |
| Dimensions | 172 x 110 x 100mm |
| Weight | 350g |

## Packing List

| Elcometer 139 Amine Blush Swab Test Kit |
|---|
| 20 x Polystyrene Sampler Test Tubes of 1.0ml buffer solution |
| 1 x Test tube of Diluent Part A solution |
| 1 x Test tube of Diluent Part B solution |
| 2 x Diluent Transfer Pipettes |
| 3 x Test Part A dropper bottles - containing ACh-E powder (freeze dried) |
| 3 x Test Part B dropper bottles - containing ATC powder (freeze dried) |
| 1 x Test Part C dropper bottle - containing Chromogen DTNB solution |
| 1 x Bottle of Swab Solution - containing 25ml of rubbing alcohol (70% IPA) |
| 20 x Cotton Swabs (q-tips) |
| 2 x Swab Templates - 2.54 x 2.54cm |
| 1 x Pair of Tweezers |
| 1 x Re-sealable plastic bag for content disposal1 x User Guide. |

## Accessories

| Part Number | Description |
|---|---|
| T13923546 | Test Tube Stand |

# Test Method

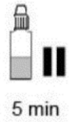
## Test Part A (green)

1. Remove the green bottle cap and dropper tip from the Test Part A bottle.

2. Using the 1ml marker as a guide, remove 1ml of Part A Diluent – green capped tube, using the appropriately colour coded transfer pipette.

3. Add the 1ml Diluent into the appropriate Test Part A bottle.


4. Replace the dropper tip and bottle cap and shake the diluted Test Part A bottle moderately for about 30 seconds.

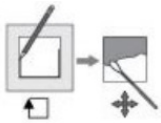



5. Wait at least 5 minutes before using the prepared Test Part A Solutions.

## Test Part B (blue) Follow steps 1-5 above using the blue colour coding:

1. Dip the cotton portion of a Cotton Swab (q-tip) into the Swab Solution bottle.

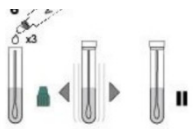

2. Remove excess by rolling cotton tip on the inside of the bottle.



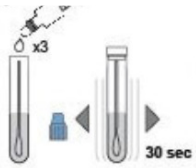
3. For each sample using the Swab Template as a guide, swab a 2.5 x 2.5cm area.

4. Wave the Cotton Swab in the air until dry (about 2 minutes).

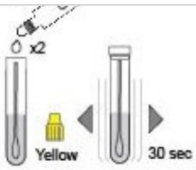
5. Place the Cotton Swab into a Sampler Test Tube, replace the top and shake for 30 seconds.



6. Add 3 drops of Test Part A (green cap), shake for 30 seconds and incubate (rest) the sample for 30 minutes at room temperature 10 – 30°C (50 – 86°F), avoiding direct sunlight.



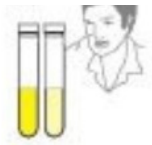

7. Add 3 drops of Test Part B(blue cap), shake for 30 seconds.




8. Add 2 drops of Test Part C (yellow cap), shake for 30 seconds.


9. Incubate (rest) the sample for 30 minutes at room temperature, avoiding direct sunlight.

10. Remove and environmentally dispose of the Cotton Swab.



11. Visually compare the results to the control sample within 10 minutes of test completion: Amine blush is present if there is a detectably lower intensity of yellow colour observed in the test sample as compared to the control sample.