



Technology for Sealants & Coatings  
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**Nawkaw Corporation March 1, 1991**  
**2283 Argentia Road**  
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**Mississauga, Ontario**  
**L5N 5Z2**

## **ACCELERATED WEATHERING TEST RESULTS**

### **TEST CONDUCTED BY: FRED PUGSLEY - B.Sc, M.Sc**

Samples of wire cut bricks were prepared by Nawkaw in a size suitable for fitting into the racks of the QUV.

Five duplicated 'tiles' were prepared with the Nawkaw color treatment by Nawkaw's Operations Manager. One pair of tiles was not treated (to act as controls). The other four pairs were treated according to Nawkaw's normal operation where a white, yellow, red, and blue treatment would be required. The blue tiles were of a 'slate' color indicating that black as well as blue was included.

In this way the three primary colors plus black and white were tested. A parallel set of duplicated tiles was prepared using opaque colors on the cut side of the tiles since they were smoother.

The 10 tiles were divided into two sets. One set was kept separate to act as controls while the second set was tested in a QUV accelerated weatherometer with UVB-313 bulbs. This provided a 16 hour UV plus 8 hour condensation cycle. The tiles were tested with a Macbeth colorimeter. The readings were recorded as the difference in color readings between the control tile and the 'under-test' tile of the same color

Similarly the other opaque colored tiles were divided into control and test groups and tested simultaneously in the same way as the normally prepared tiles.

Using the ratio of hours in the QUV to the years exposure in Florida, the test was designed for 25 years Florida exposure.

## CONCLUSIONS

The Nawkaw color treatment changes the appearance of the masonry but leaves the pores open so that 'breathing' is maintained. After the 25 year test there was no perceptible difference in the colors versus their controls when viewed at 25 feet.

The opaque tiles were originally designed with the pores closed due to the thickness of the treated film. This part of the experiment was designed to show early failure due to peeling. It was very surprising that the quality of the treatment was so good that there was not only no peeling but there was also no perceptible difference in the colors versus their controls at 25 feet in the case of the opaque tiles.



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