

<b>Memo</b>	<b>QUV test on Anti-Graffiti Matt Transparent</b>
Door: Wilma Visser	Datum: 15-2-2017

**Subject**

Tests results of 2K WB Anti-Graffiti Matt transparent (60-3503) on UV-resistance by testing with QUV.

**Information:**

The QUV is an accelerated weathering tester. The QUV exposes coatings to alternating cycles of UV light and moisture at controlled elevated temperatures. It simulates the effect of sunlight with UV lamps. In this test UV-B lamps were used with wavelength in the short-wave range. In general this type of light causes the most damage, so this is the most extreme way of testing the UV-resistance. The coatings were tested on loss of gloss and degradation of the coating.

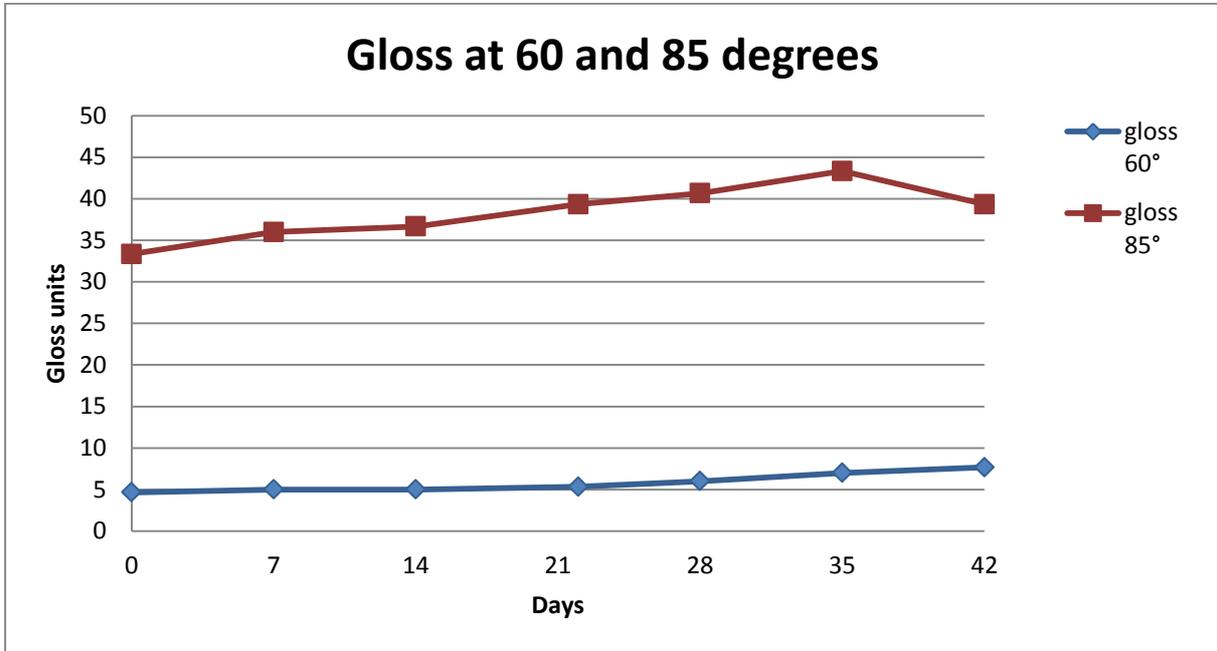
**Procedure:**

1. The coatings were applied on 5 steel panels of 15x7,5 cm coated with primer.
2. Before application the panels were cleaned with D40.
3. One layer of 125 µm was applied by spray application
4. The panels were tested for 42 days (= 6 weeks, 1008 hours) in the QUV. The QUV was set to make cycles of 8 hours of QUV and 4 hours of condensation and repeated.
5. The panels were judge on gloss and degradation once a week.

**Results:**

The panels were judge every week on degradation by checking for craters or craquelure. All test panels stay free form these defects.

In figure 1 the change in gloss is shown. The gloss reflection is measured at a corner of 60° and 85°. The gloss level at 60° only varies from 5 to 7 gloss units. The gloss level at 85° changes from 32 to 40 gloss units. This change is not significant and the effect will not be visible by human eye.



**Figure 1:** Change in gloss

**Conclusion:**

The Anti-Graffiti Matt transparent shows no degradation in the QUV test with UV-B lights after 1008 hours. The coatings show no defects like kraters or craquelure. The gloss is changing just a little bit during the test. This concludes that the coating will not (or barely) show degradation under the influence of UV-light. The Anti-Graffiti is highly resistance towards UV exposure.