

Avoiding bird collisions with glass surfaces. Test report ABC Bird Tape and Tesa® 4593. Test in the Flight Tunnel II at the Biological Station Hohenau-Ringelsdorf (Austria) according to ONR 191040 and in a test setup for checking the effect of reflections („WIN-test“).

April 2013

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german version (465 KB pdf)

<http://wua-wien.at/images/stories/publikationen/vogelanprall-bird-tape-tesa.pdf>

„Verminderung von Vogelanprall an Glasflächen. Prüfbericht ABC Bird Tape und Tesa® 4593. Prüfung im Flugtunnel II der Biologischen Station Hohenau-Ringelsdorf nach ONR 191040 und unter Einbeziehung von Spiegelungen bei dunklem Hintergrund (WIN-Versuch)“

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April 2013*

Two kinds of transparent adhesive tapes have been tested – ABC Bird Tape and Tesa® 4593. Four test series - three with ABC Bird Tape, one with Tesa® 4593 – have been conducted. ABC Bird Tape got tested according to ONR 191040 (Austrian Standard for Bird Protection Glass) in two different arrangements: as single stripes with an interspace of 10cm and two tapes placed with an interspace of 0.5cm. These „double-stripes“ had an interspace of 10cm to the next „double-stripe“. The shares of covered space in these two versions were 15.2% and 22.8% and are comparable to the markings with semitransparent foil tested 2007. In the test setup for checking the effect of reflections („WIN-test“) ABC Bird Tape single stripes and Tesa® 4593 got tested.

ONR Test ABC Bird Tape

„ABC Bird Tape single stripes“ with a coverage of 15.2% has been approached by 18.5% of the birds. Thus it is classified as a limited suitable marking. The results correlate with those from the similar semitransparent glass decor foil called ORACAL Etches® tested in 2007 (Study published 2008).

„ABC Bird Tape double stripes“ with a coverage of 22.8% has been approached by 10.2% of the birds and therefore misses category A (highly efficient). Thus it appears that a higher share of covered space is necessary for ABC Bird Tape to work extremely efficient. This was the result of the tests of semitransparent foil in 2007 too. There were no disparities in different light situations.

WIN-Test „ABC Bird Tape single stripes“ and „Tesa®“

So far there are just a few comparative values available for this experimental arrangement. A number of less than 20% of the birds approaching the marked pane has only been achieved by a black-orange marking with high contrast. Numbers close to 20% have often been achieved by markings of category A (highly efficient) and B (limited suitable). „ABC Bird Tape single stripes“ and „Tesa®“ were approached by 21.8% and 22.3% and thus do not differ in their efficacy. There were no disparities in different light situations in this experiment, too.

Conclusion

In consideration of efficacy in terms of reducing bird collisions on glass panes ABC Bird Tape is comparable to the semitransparent foil which was tested in 2007. The adhesive tape reduces the risk of a collision even though category A is only achievable with a high share of covered surface. The ONR-experiment shows that single stripes with an interspace of 10cm are not enough for high efficacy. A doubling of the covered surface with parallel “twin lines” is favourable according to the ONR-experiment. In the WIN-experiment „ABC Bird Tape single stripes“ turned out to work pretty good. This seems to be due to richness in contrast between the bright tape and the dark background of interior rooms. In another WIN-test setup in 2012 which can not be further discussed because of a non-disclosure agreement with the purchaser, 21.5% of birds approached a pane with thin horizontal black stripes. These stripes meet the marking standard for glass panes according to ONR 191040. This means that single Bird Tape stripes are equal in efficacy to the black stripes often suggested by us. That applies to Tesa® 4593 too. Hitherto only black-orange-dotted markings performed better in the WIN-test setup.



ABC Bird Tape single: 18.5% (ONR)



ABC Bird Tape double: 10.2% (ONR)



ABC Bird Tape: 21.8% (WIN-test)



Tesa®: 22.3% (WIN-test)

“%“: birds flying towards the marked pane in the choice experiment



“WIN-test” simulating reflections in windows

Black boards limit the sighting field of the birds to the glass panes. The white boards, a roof and the camouflage net build a room with an illuminance $<25\text{W/m}^2$ behind the panes.