

Test report (ADP_Forensik_3)

Aging test for the closure of a breathable bag
including content

Debatin products:
Debabreathe (Breathable material)

Tested by:
Dr. Oliver Tröber

Date
20.03.2015

Preliminary remarks

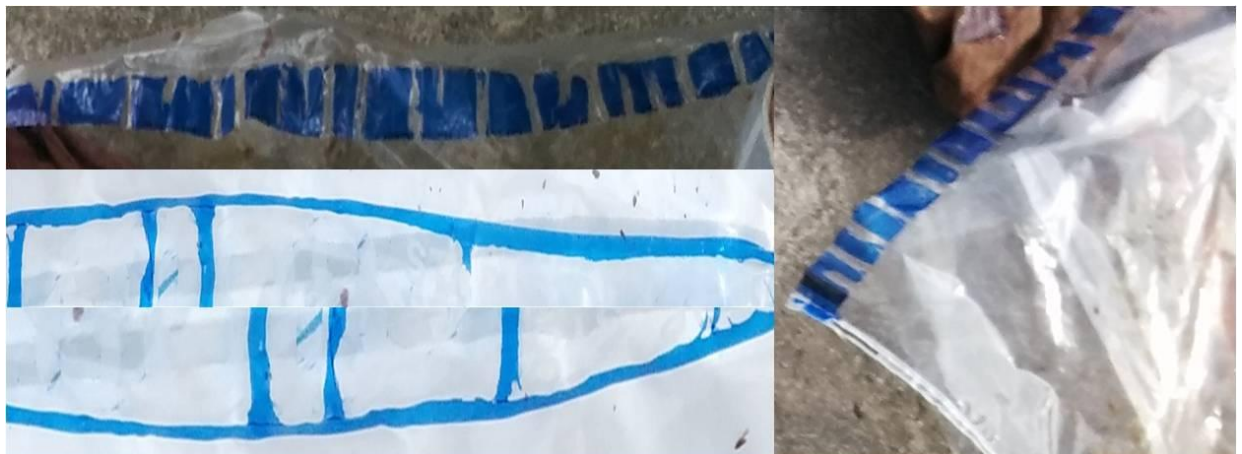
Since evidence – such as evidence from crime scenes – has to be stored for a long period of time, a 10-year aging test was simulated in line with the ASTM D 3611 standard.

Procedure

Debabreathe bags were filled with damp clothing, sealed, and stored for 480 hours at 65°C and 80% relative humidity, thus accelerating the aging process. After this period of time, which approximates to roughly 10 years of storage, the bags were opened and the security mechanisms assessed once these had cooled.

Result:

Each bag remained sealed after aging. By pulling the closure, it was possible to open the bag. Tack was minimal but still palpable. The hidden message of the tamper-evident sealed closure was no longer recognisable, but the security finish was still partially transferred to the pouch of the bag and thus continued to fulfill security regulations.



Ill. 1: Opened closure of the security bag containing the evidence

Conclusion:

Accelerated aging strongly diminished the performance of the closure. Nonetheless, the bag remained closed and the security mechanism intact. The samples were dry and free of mould. Under these conditions, the Debabreathe bags displayed a high level of long-term stability, underscoring their suitability for storing evidence over long periods of time.

The packaging with breathable material on one side of the bag allowed residual water to evaporate through the packaging and thus prevent the development of mould.

Dr.-Ing. Oliver Tröber, 20.03.2015