

What do these terms mean?

Water repellent

Moisture is one of an archive's biggest enemies

The causes of moisture can vary. Water can get into an archive because of a natural catastrophe or during construction activities. Leaky pipes or broken pipes can get archive materials wet. Water damage can also happen if a fire needs to be extinguished.

The damages can be very serious:

- Archived materials can swell and become deformed.
- Ink and stamp colours can run.
- Water marks, water rings and dirt marks can appear.
- Mould spores can break out within 48 hours. The matter of the archived material itself is endangered. There may be a higher health risk for people who come into contact with contaminated archived material.
- Once the material begins to dry, pages stick together, particularly parchment paper (vellum), photo material, covers and bindings and art print papers.

Although water represents one of the biggest threats for archived material, it's not usual to have an alarm warning again water issues – in contrast to the early warning of fire alarms. As a result, it's even more vital to rely on preventative controls against potential water damage. Thermo-hygrographs record specific climate conditions and indicate a change in climate when moisture values rise. By using thermo-hygrographs you can initially find out in time about any moisture sources that could be beginning because of small water pipe leaks.

What else can you do to prevent water damage?

The new DIN ISO 16245 standard for non-aging archive packaging contains a passage dealing with the potential water damage situations described above. Section 4.6 contains a maximum value for how much water an archive box can absorb and this maximum value shouldn't be exceeded. The value is revealed by a Cobb test and should be no more than 25.

What does the Cobb value mean?

The Cobb value reveals information about the water absorption capability of paper and cardboard. For cardboard, this value is particularly important for calculating expected stability of a box or folding box. The lower the Cobb value, the more stable the packaging will be even when moisture levels are high. The value contained in the DIN standard allows maximal water absorption of 25 g/m² within 60 seconds.

To achieve a low Cobb value, a sizing agent is added to cardboard during the production process which helps in partial hydrophobicity (water proofing). This allows an added layer of extra safety for you and your archived materials.