

Swiss manufacturer of specialty adhesives uses the MKF 240 climate testing chamber from BINDER to test the latest adhesive technology

Company values consistency and reliability



Collano Adhesives AG headquartered in Sempach near Lucerne, Switzerland, belongs to the Collano Group and currently employs 328 people. The company develops and distributes specialty adhesives for use in construction, labels, tapes, packaging, protective adhesive systems, textiles and foams.

In application technology, countless tests are performed on adhesive bonds to increase the quality, productivity and safety of the adhesives. Customer-

specific adhesive bonds are tested both on original materials, standard testing with standardized materials, as well as the behavior of adhesives under various environmental conditions. The BINDER [climate chamber](#) has the responsibility of testing the setting behavior of the adhesive under different climate conditions. In particular, the adhesive bonds are stored at high temperatures or climate change testing is performed.

The tests are carried out according to different requirements. However, most are based on a standard, where others try to simulate reality as close as possible. The employees of Collano Adhesives AG appreciate that the [MKF 240 climate chamber](#) from BINDER can store the individual test programs, making recurring climate change testing easy to carry out without additional time required for programming.

Accurate testing of aluminum cover plates for the transport industry

To demonstrate the suitability of the sample bonding of aluminum comb with aluminum cover plates for a sandwich element, the cover plates are subject to a so-called climbing drum peel test according to DIN 53295 / ASTM D 1781-98 (2004). This test is used to simulate different storage conditions, e.g. at ambient temperature, but also storage over weeks and months for specified climate changes. Temperatures vary from sub-zero temperatures of -40 °C to over 100



°C up to max. 180 °C. In addition, the relative humidity is also varied. The test program simulates the possible climatic characteristics from warm and humid conditions to hot and dry or ice cold.

Consistent conditions ensure consistent test results

However, the range of application is quite varied. Among other things, the adhesive bonds of the chip modules for smart cards are tested under the different climate conditions. In addition, expansion joints, insulation bonds and bonds to building materials of various types such as wood, stone, metal, etc. are tested. All adhesives are exposed to a specific environmental situation and their behavior precisely tested. To ensure comparable, verifiable test results, the test must be carried out under comparable conditions. The BINDER [MKF 240](#)



meets these requirements and Collano employee Thomas Frey also notes "that the climate chamber quickly produces and consistently maintains the specific climate."

User-friendly programming via PC

Among other things, the advantage of BINDER [climate chambers](#) lies in their flexible programming. The user has the option of inputting the program into the unit directly or conveniently from a PC. This allows temperature and humidity to be controlled simultaneously or independently as required and allows several cycles to be programmed if necessary. In addition, Collano employees note that it is possible to set tolerance limits to achieve high accuracy, reproducibility and consistency. And the access port on the side of the chamber and the viewing window on the unit with interior lighting ensure optimal test setup that can be controlled and observed at all times.

The BINDER climate chamber is used at Collano around the clock, be it for internal or external projects. The company especially appreciates the versatility of the [MKF climate testing chambers](#) from BINDER.

Find more information at: <http://www.binder-world.com/en/products/environmental-simulation-chambers/mkf-series/mkf-240/>