

In response to Stiftung Warentest Test Report

August 2019

We were extremely disappointed to learn about the Stiftung Warentest report that questioned the safety and suitability of bamboo fibre Cups produced with M-F resin. While we choose not to speak on behalf of the entire industry, we strongly disagree with much of the methodology and several of the conclusions drawn from the Stiftung Warentest tests.

This document seeks to outline the main reasons for our disagreement.

1. Methodology Used

In order to ensure our products comply with EU (*nee German Food and Commodities Act – Lebensmittel und Futtermittelgesetzbuch*) LFGB legislation governing our sector, we have tested them on no fewer than ten (10) occasions during the past 18 months. To do this we have utilised the services of independent, expert test laboratories, TÜV Rheinland and Intertek. In accordance with the LFGB requirements we have been required to submit three (3) cups, per test procedure, meaning that we have submitted and tested a total of thirty (30) individual Cups overall. This has provided us with a large body of data for our products.

The Stiftung Warentest report details that they tested one (1) cup, at a non-specified laboratory under non-specified conditions. Therefore, we contest that:

- i. Stiftung Warentest tests do not comply with the European Reference Laboratory (EURL) guidelines for testing kitchenware that contains melamine. These guidelines dictate the test protocols that manufacturers and regulatory bodies must follow to demonstrate the safety of such products when they come into contact with food. [You can view this document here](#)

Specifically, and to our knowledge:

- a. Stiftung Warentest heated both Cup – and the liquid in it – to +70°C prior to conducting their tests. The guidelines call for the solution to be heated to this temperature before imitating the test, but not the Cup. This is a small, but important difference, given the sensitivity of the test.
- b. Stiftung Warentest tested one (1) cup only. The test method described by the EURL states that a minimum of three (3) Cups must be tested.
- c. Stiftung Warentest did not maintain any “B” samples so that companies whose products were tested could independently verify their testing. This is a condition of the EURL standard.
- d. Stiftung Warentest repeated the test seven (7) times without detailing whether or not each was conducted independently, or as one continuous test.



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2. Conclusions Drawn

- i. Stiftung Warentest assert that Cups are unsuitable for regular use with liquids above +70°C. This is not correct.
 - a. Paragraph 7.4.4 of the EURL guidelines states that products which contain melamine, and that are intended to come in contact with hot food and liquids, need to be tested for 2 hours at +70°C, in a 3% acetic acid solution. The test to be repeated three (3) times, with the result being recorded on the 3rd test.

The only reason Cups are tested at +70°C for 2 hours in acetic acid solution is because the EURL's test guidelines *dictate such* – not because it mirrors real life usage conditions. These tests have been created by research scientists to push the limits of the product tolerance, allowing manufacturers and regulators to learn from the results. Stiftung Warentest fail to acknowledge this.

- b. The very act of pouring boiling water from a kettle will immediately cool the liquid to approximately +95°C. Within eight (8) minutes the water will have cooled to +60°C and +50°C within 20 minutes.
 - c. The 3% acetic acid test solution has a pH of 2.7, roughly the same acidity as vinegar or lemon juice. The pH of a black coffee or tea is 5.0 and a “Flat White” coffee is pH 5.7.

Given that the LFGB test is in no way designed to mirror real life conditions, the Stiftung Warentest claim that Cups are not suitable for regular use with liquids above +70°C is clearly not valid.

- ii. The Stiftung Warentest's report presents their medical “evidence” surrounding the alleged dangers of melamine and formaldehyde ingestion, in definitive, black and white terms. This is simply untrue.

Put simply, the Stiftung Warentest test report presents no qualitative or quantitative scientific evidence to support their “health risk” claims, citing little more than anecdote and using terms such as “*is known to cause*” or “*could have detrimental effects...*”. No definitive clinical studies are quoted; no annotations for evidence provided.

Indeed, our review of a large body of medical evidence suggests that melamine and formaldehyde can be dangerous, only if inhaled or ingested in large quantities. There appears very little evidence available about the dangers of melamine ingested in small quantities, and the evidence that is available suggests that formaldehyde is commonly ingested in small quantities since it occurs naturally in fruit and vegetables.

Since M-F resin has been used in tableware products since the 1930s, we find such omissions in the Stiftung Warentest report glaring. It is our firmly held opinion that if any organisation is to make serious “health risk” allegations, they should present their supporting clinical data in a formal, medically annotated format. This was not the case in this instance.

If you would like to find out more about these issues, we recommend the following articles.



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<https://foodinsight.org/chemicals-in-food-two-that-arent-as-scary-as-they-sound/>
https://www.who.int/foodsafety/fs_management/Melamine.pdf

We thank you for the opportunity to present our side of the argument. We approach such matters simply on the basis of providing high quality products that are both practical and safe for our customers' requirements. With that in mind, this document was written in good faith and in the spirit of openness. We remain committed to total transparency in the on-going dialogue on the issues raised by Stiftung Warentest.

Kind regards,



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