Nutritional science and home economics sets the standard for “VDE Quality Tested”

Application technological tests are an essential component of the usability test of household appliances. Specifically, not only energy efficiency, handling or safety are important in the field of kitchen appliances, also the test of food is part of the process.

Aside from the standardized test foods also those will be used, which are frequently consumed. This means that the tests are constantly adapted to the developments in the food sector. Such user-oriented tests are very useful aids for the further development of consumer goods. The test results are scientifically evaluated with the focus on nutritional sciences and it will be determined, whether the quality requirements for the VDE quality mark are met by applying established criteria.

If the test aspects safety, EMC, handling and other appliance-specific requirements are also fulfilled, the tested appliance will receive the “VDE Quality Tested” label. These safety technological and quality-oriented test requirements establish this label as an outstanding quality award for manufacturer and trade.

Please use our competence

The VDE offers the mentioned integrated testing and evaluation services as well as certifications and other services from one source. Benefit form the globally recognised service capability of the VDE.

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From the VDE culinary studio

Depending on the type of appliance the tests will be performed with the operating states of baking, roasting, cooking, grilling, boiling and thawing.

The evaluation of the food preparation of e.g. cakes, bread, meat and fish food, vegetables and pies is done at the VDE Institute by a highly competent and experienced nutritional scientist. Standardized test foods are, among others, muffins for the evaluation of ovens and broccoli for the assessment of steam cookers. The baking result of the muffins shows whether the heat distribution in the oven is horizontally and vertically even. The steam cooker is only awarded the “VDE Quality Tested” label if, among other aspects, the green color of the vegetable is evenly well preserved.

Assessment criteria for usability testing

- Evaluation of the results according to home economics criteria, e.g. browning/cooking degree, texture (crumb and crust), baking height, sensorial characteristics (optical, olfactory, gustatory, haptic)
- Evaluation of the heat distribution, the heat supply and the moisture management
- Accessibility for the loading and unloading, cleaning characteristics (pyrolysis, catalysis)
- Functioning/handling characteristics and technical details
- Recording of the energy consumption and measuring of the energy efficiency
- Noise emission
- Life cycle

The quality label “VDE Quality Tested”

The safety and EMC requirements as well as the product specific quality criteria have to be fulfilled in order to receive the quality label “VDE Quality Tested”.

Electrical products, introduced into the market, have to comply with the relevant normative, directive-specific and legal requirements for safety, health and electromagnetic compatibility. For appliances used for baking and cooking the following directives apply within the EU:

- the EU Low Voltage Directive (2006/95/EC; new 2014/35/EU),
- the EU EMC Directive (2004/108/EC; new 2014/30/EU),
- the Product Safety Act (ProdSG).

The VDE Institute confirms for instance with the VDE Mark approval and the VDE Mark

- the conformity with the safety requirements of the relevant European directives,
- the standard conformity and the keeping of the requirements of the Product Safety Act (ProdSG).

These supporting documents form the basis for the EU Declaration of Conformity and the CE marking by the manufacturer or his representative.

Additional services

- Testing according to Ecodesign-Directive (2009/125/EU) and measuring for energy efficiency labelling (2010/30/EU)
- Chemical analysis
e.g. LFGB, PAH, RoHS (Material and product testing, analytics, documentation)
- VDE SMART Manual: development of easily understandable, user-friendly operation manuals
- International certification service: obtaining of international approvals for the global market access, e.g. CCC mark for China, CSA and UL mark for North America, etc.

Our competence – Your advantage

The VDE Institute offers comprehensive expertise and valuable services in the field of testing and certification of electro technological components, appliances and systems. In the area of cooking and baking these are:

- Cooking ranges
- Ovens
- Stove tops/hobs
  - Mass stove tops
  - Ceramic stove tops (induction/radiation heaters)
- Steam cookers
- Microwave appliances
- Kitchen hood

The VDE Marks are premium marks for safety and quality, appreciated by manufacturers, trade and consumers.