

Information for tests according to DVGW Standard W 270 respectively DIN EN 16421, method 2

Scope of this standard

The standards DVGW W 270 and DIN EN 16421, method 2, describe a test method to determine the microbial growth on non-metallic materials, foreseen to come into contact with drinking water. Therefore, the test is a material test and solely for multi-layer systems and pipes ID < 80 mm the test will be performed on the product. The test performance of both methods is identical.

Recipe (chemical formulation)

By recipe is meant the detailed chemical composition of the material that is used to manufacture the product. The recipe in dependence of the material type has to be in accordance in each case to the applicable positive list of KTW Evaluation Criteria and other UBA test specifications like Elastomer Guideline.

Hence we need the complete disclosure of the recipe for assessment. At this all used substances and additives have to be listed. This list has to contain the chemical name of the compound inclusive the CAS registry number, trade name, the percentaged addition of the particular substance and the function of the substance. Please use our form.

For the disclosure of the recipe a confidential agreement can be concluded. On demand we will send you our template.

Test samples

With regard to the submitting of the test samples following cases have to be differentiated:

1. Material testing

For the material testing following test pieces are required:

16 test plates à 200 x 200 mm; thickness 2-10 mm

The plates have to be made of the material that will be tested. If a coating material will be tested steel or glass plates coated with the material have to be used. If it is not possible for you to manufacture the test plates in the specified dimensions, please contact us to clarify the use of other dimensions. In this case the test costs could increase slightly in dependence of time and material. In any case we ask you to attach no labeling by marking or pasting on the test plates.

2. Pipe testing

If the test should be performed at the product for instance a composite pipe in the test rig following test specimen according to the pipe inner diameter corresponding to the following list are needed:

The list is exemplary and we ask for a detailed agreement before sending us the test specimens.

Inner diameter of 10 mm:	16 pieces à 1 m
Inner diameter of about 25 mm:	16 pieces à 0,5 m
Inner diameter of about 40 mm:	16 pieces à 0,3 m

Please note that pipes with an inner diameter smaller than 10 mm and pipes with an outer diameter greater than 50 mm cannot be tested in the pipe test rig.

Testing costs

The net testing costs (no VAT included) for the test according to DVGW-standard W 270 are detailed as follows:

Recipe review	950 € (Note: If the recipe review is already done within the KTW-testing it is not required to do it again. In this case we ask you to provide us the KTW-certificate.)
Testing of material plates (standard dimensions)	1.590 €
Testing of pipe specimens / material plates (special dimensions)	2.000 €

Additionally, we want to inform you, that it is possible to produce the test plates with the specified dimensions at a company that is authorized by us. This means that we need only an adequate amount of granule. The additional costs for the production are amounting to 1.150 €.

Test-procedure and -duration

Upon receipt of your request for testing your product for the hygienic suitability for use in drinking water, at first the recipe review will be done at the base of your submitted documents. For simplifying the placing an order you can use the attached standard form. After positive recipe review the testing procedure starts. At the same time as we confirm your order we will inform you about the starting of the testing procedure. The test-duration is at least 3 months.

Validity of W 270 test certificates

The validity of the W 270 test certificate is regulated elsewhere. Usually the validity period is 5 years. Under certain conditions the validity period can be extended for other 5 years. The test certificate automatically becomes invalid if the specifications changes or if changes in the recipe or in producing take place.

The test certificate covers the declared range of use and all subjacent ranges of use for which lower standards are valid. The range of use depends on the test results.

For testing according DIN EN 16421, method 2 only a test report will be issued.

Additional information

Contact: Mr. Heiko Delong, Tel: 0721 93163-20, email: heiko.delong@tzw.de