

Assessment and test criteria
for the attainment and awarding of the

- SEAL OF QUALITY -

- Technical Flood Protection Part 2 -



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Installation of technical flood protection products

Implementation regulations for system testing

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Assessment and test criteria

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Quality and test regulations

Installation of technical mobile flood protection systems

1. General

Depending on the technical flood prevention system applied and its purpose, further relevant criteria may be considered concerning the combination of the individual components.

2. Scope

The EVH quality and test criteria apply to the installation of technical flood protection systems. Changes relating to the test criteria must be reported. In addition, after three years, the manufacturer who has been awarded the seal of quality must provide evidence that the test results still meet the test criteria of the initial application. The Quality Committee reserves the right to verify this information.

3. General Terms and Conditions

3.1 Standards and regulations

Depending on the purpose for which the technical flood protection system is required, its installation must adhere to the generally accepted rules of sound engineering practice, in compliance with the relevant national standards. Relevant EN standards also apply where these exist.

3.2 Authorisation to test and supervise

The assessments and tests are carried out by the EVH Quality Committee according to Article 9 of the Association's statutes. The practical tests are carried out by the applicant on testing equipment assigned by the Quality Committee and under its supervision.

4. Requirements of the system

EVH test criteria and assessment categories

4.1 Defining load case classifications

4.1.1 Hydrostatic load/damming - HS -

4.1.2 Hydrodynamic load/damming - HD -

4.1.3 Damming height - SH -

The height is given in metres. Damming height measures from the permanent structure (the reference plane) to the lowest point at which the technical flood protection product would be overtopped. For example: PH Category 0.5 means a water level of 0.5 m above the reference plane.

4.1.4 Damming duration - SD -

The duration is given in hours. For example: SD Category 24 means a proven period of 24 hours.

4.2 Level of leak-tightness to be achieved by the sealing system of the technical flood protection product when it is integrated into the permanent structure.

Leak-tightness test at 1.0 m damming height per running metre of seal.

- Category 0: No leakage
- Category 1: Up to 0.05 l leakage per hour per running metre
- Category 2: 0.05–0.1 l leakage per hour per running metre
- Category 3: 0.1–0.5 l leakage per hour per running metre
- Category 4: 0.5–1.0 l leakage per hour per running metre
- Category 5: More than 1 l leakage per hour per running metre

5. Requirements concerning installation

5.1 Installation to withstand static and dynamic loads

The installation of technical flood protection products serves to achieve requirements made of the overall system. In most cases, the type of installation appropriate for the technical flood protection product is defined in the specific information issued by the manufacturer. The fitter is to test the suitability of the ground, taking into account the requirements made and further influences. These notably include hydrostatic and hydrodynamic loads, impact forces and thermal effects.

5.2 Integration into/sealing of the permanent structure

Proper sealing of connections between technical flood-protection products and to the edges of surrounding constructions serves to achieve the defined leak-tightness requirements. In most cases, the type of seal appropriate for the technical flood protection product is defined in the specific information issued by the manufacturer. The installer is to test the suitability of the ground and select the appropriate sealant/sealing system, taking into account the purpose of the system and further influences. These notably include thermal effects, the compatibility of the materials and sealants used, and the avoidance of infiltration through sealed zones. Further norms also apply, such as the generally accepted rules of sound engineering practice, relevant national standards (e.g. DIN 18195 for structural waterproofing, DIN 18540 for the sealing of external wall joints, etc.) and relevant EN standards, where these exist.

6. Qualification of the installer

Well-qualified installers ensure proper installation, meaning the technical flood protection system functions according to requirements.

6.1. The manufacturer of the technical flood protection system is to train the installer in the theory and practice concerning the operation of the product, its technical specifications, installation, etc.

6.2. Thanks to his/her training and qualifications, the installer is qualified and able to:

- Analyse and assess the ground and permanent structures
- Fit/install according to point 5.1
- Integrate the product according to point 5.2,

which must be proven on request.

6.3. With the application documents, the applicant must also provide evidence of liability cover to an appropriate amount.

7. Other testing regulations

7.1 Verification

In order to obtain the seal of quality, the applicant must submit the appropriate documentation and evidence for the proposed assessment group to the Quality Committee, in accordance with the minimum requirements listed in the documentation.

7.2 Documentation

- Simple application letter
- Signed commitment form
- Complete and comprehensible description of the system
- Detailed drawings, if appropriate
- Data sheets for the materials used, including proof of compatibility
- Proof of qualification

7.3 Instructing the EVH

The application for testing or the award of the seal of quality must be submitted to the Board of Europaverband Hochwasserschutz e.V. in triplicate. The Board of the Association instructs the internal Quality Committee.

8. Labelling

8.1 Award

Companies that install technical flood-protection systems in accordance with these quality and test regulations can use the flood protection seal of quality provided that they were awarded the right to use the seal of quality and compliance with the specified quality has been assured. The seal of quality may only be used in conjunction with an indication of the assessment group or groups for which it was awarded, and with reference to the respective quality and test regulations.

8.2 Use

The use of the seal of quality is exclusively subject to the quality and test regulations for the award and use of the flood protection seal of quality laid down by the Quality Committee for Flood Protection in the version dated October 2012.

9. Changes

9.1 These quality and test regulations can be supplemented and further developed in the light of technical progress. Changes require the prior written consent of the EVH. They will come into force within a reasonable period from the date of written notification to the bearer by the Board of Europaverband Hochwasserschutz e.V..

10. Costs

10.1 Each test procedure and the awarding of the seal of quality are subject to a charge. After submitting the application, the applicant shall receive an estimate of both the fixed costs and the costs of the services of the Quality Committee.

Commitment form

- Application form -

1. The applicant or the undersigned company hereby applies to Europaverband Hochwasserschutz e.V. for:

- The right to use the seal of quality for the installation of technical flood protection products of the following assessment group(s):
 - Landscape protection
 - Property protection
 - Civil protection

2. The undersigned/the undersigned company confirms that

- the statutes of Europaverband Hochwasserschutz e.V. and
- the quality and test regulations of Europaverband Hochwasserschutz e.V.

have been duly noted and are hereby acknowledged as binding without reservation.

Place and date

Company stamp and signature

Award certificate

In accordance with the test reports provided, the Quality Committee of Europaverband Hochwasserschutz e. V. hereby awards the FLOOD PROTECTION SEAL OF QUALITY to

(installer).

The seal of quality is recognised by Europaverband Hochwasserschutz e. V. and protected as a collective trademark, having been registered with the German Patent and Trademark Office.

The use of the seal of quality is only permitted in conjunction with the system described under the seal of quality and is valid in combination with the test report dated _____

Koblenz, (date) _____

EUROPAVERBAND HOCHWASSERSCHUTZ E.V.

Representative Quality Committee

Chairman

Secretary