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vdi appendix b requirements for bodies engaged in certification testing and inspection

Appendix B, Requirements for bodies engaged in Certification, Testing and Inspection

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1 General requirements

The bodies engaged in Certification, Testing and Inspection shall fulfil the following minimum conditions:

- Availability of personnel and of the necessary means and equipment
- Technical competence and professional integrity of personnel
- Impartiality, in carrying out the tests, preparing the reports, issuing the certificates and performing the inspection and surveillance provided for in the scheme rules, of staff and technical personnel in relation to all circles, groups or persons directly or indirectly concerned with the products
- Maintenance of professional secrecy by personnel
- Subscription of a civil liability insurance.

In figure 1 the relationships between parties involved in CE-marking (if relevant) and voluntary Product certification is shown.

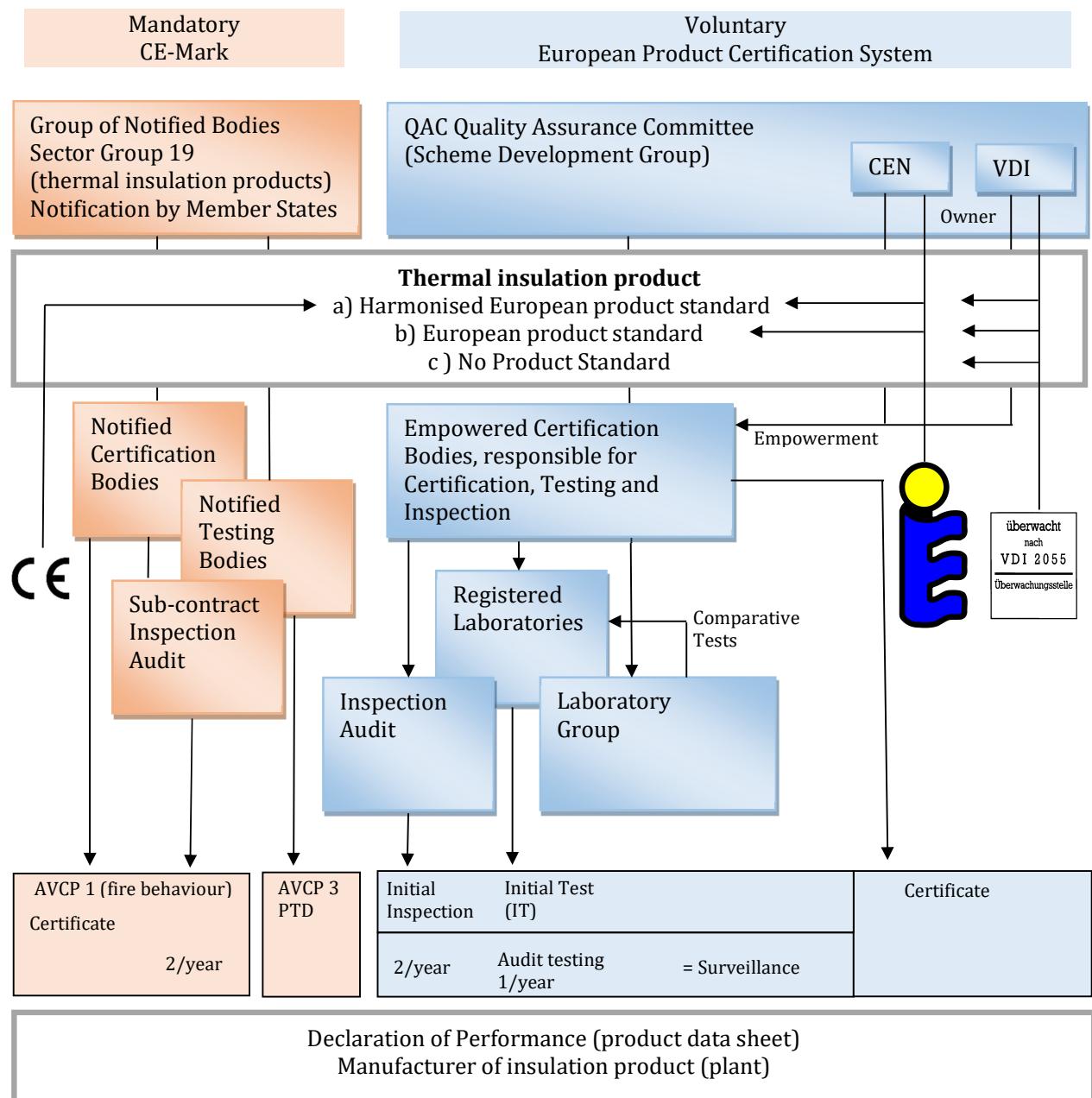


Figure 1: Relationships between parties involved in CE-marking and voluntary Product certification

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2 Requirements for Certification bodies (Empowered)

2.1 General

Certification bodies shall be accredited by an EA-member in accordance with EN ISO/IEC 17065. They are responsible undertaking inspection, surveillance and testing activities and ensuring sub-contractors competence. In addition, where testing is subcontracted, the empowered organisation shall ensure, that the sub-contracted testing organisation fulfils the requirements laid down in section 7.3. The testing institutes shall specify to which product standards they have experience in performing services. In addition, where inspection is subcontracted, the empowered organisation shall ensure, that the sub-contracted inspection organisation fulfils the requirements laid down in section 7.4

Furthermore, the Certification Body shall have been operating for more than 2 years in the category of products for which the VDI scheme is intended to be operated.

They shall obtain the contractual permission to operate a VDI product certification scheme leading to the granting of the VDI ("empowerment"), as issued by CEN Certification Board for the KEYMARK. The Quality Assurance secretariat shall be informed of new applications for authorisation and shall have the opportunity to submit observations to the CEN Certification Board.

Representatives of the Empowered Certification Body involved in the scheme shall regularly participate in meetings of the joint working group. Participants shall participate on a regular basis in the coordination activities within the framework of these scheme rules.

After the certification body has been empowered by the CEN Certification Board to implement the KEYMARK Scheme (also valid for VDI), the assessment of its conformity to the reference requirements is achieved through renewal of its accreditation against EN ISO/IEC 17065 by an EA recognised body. Additionally, to maintain their empowerment, Certification Bodies must extend their accreditation scope to include the VDI as a voluntary scheme. For active Certification Bodies this extension must be completed before January 2027. For non-active or future Certification Bodies the extension of the scope is mandatory within 2 years after the issue of the first VDI certificate.

Empowered certification bodies must inform the QAC Secretariat and provide their updated accreditation scope. The QAC Secretariat is responsible for keeping records of these accreditations.

Failure to extend their certification scope within the specified period will result in the QAC Secretariat informing KMO and requesting the removal of the certification body's empowerment

The empowered Product certification bodies are listed on the website <http://www.keymark.eu>.

2.2 Insulation VDI database

The KEYMARK website is the place where up to date information related to the Scheme is found. For the time being no database with valid VDI certificates and the certified products exists.

3 Requirements for bodies engaged in Inspection

The bodies engaged in Inspection shall comply with the following:

- Demonstrated evidence of at least 5 years experience (Inspection body) and 2 years (Inspectors) with inspection of manufacturers' facilities producing thermal insulation according to the relevant product standard.

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- Demonstrated competence to inspect and assess manufacturers' compliance with FPC provisions particular to these scheme rules in accordance with Appendix A.
- Act on behalf of the Empowered certification body.

4 Requirements for Testing bodies

4.1 Registered testing laboratories

In these VDI scheme rules, "registered testing laboratories" are those which have demonstrated that they are sufficiently competent to examine at least one of the following important characteristics within the shown tolerances, see Table 1.

Table 1: Testing Competence of Registered Testing bodies

Thermal insulation for	Characteristics	Tolerance/requirement criteria
Building equipment and industrial installations	Thermal conductivity curve (Flat products EN 12667, EN ISO 9900)	± 3 % for the temperature range from -180 °C up to 500 °C ± 5 % for temperatures above 500 °C
	Thermal conductivity curve (Pipe testing, EN ISO 8497)	± 3 % for mean temperature range from -70 °C up to 300 °C
	Maximum Service Temperature (Flat EN 14706/EN ISO 18097)	± 0,5 % deformation at a chosen temperature
	Maximum Service Temperature (Pipe testing EN 14707/EN ISO 18096)	± 1 % deformation at a chosen temperature
	Chloride content (EN 13468/EN ISO 12624)	± 1.5 ppm
	Water Vapour Transmission properties (Flat EN 12086 / EN ISO 12572 or Pipe testing EN 13469 /EN ISO 12629)	criteria to be defined later

Laboratories shall be registered for the temperature range for which they prove their testing capability for the determination of the thermal conductivity.

For thermal conductivity measurements neither the registered laboratory nor the manufacturer is allowed to have a systematic negative deviation from the European lambda level (see the separate document Appendix B2 for the requirements for registered laboratories and information on the European lambda level).

Registered testing laboratories shall be accredited in accordance with EN ISO/IEC 17025. In particular, the laboratory shall be able to demonstrate participation in inter-laboratory comparative tests for registered characteristics with identified test equipment if this is offered.

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Notification within the framework of the Construction Products Regulation, for the relevant european product standard, is a pre-condition (as far as required, i.e. only if and where systems for the assessment and verification of constancy of performance AVCP 1 or 3 apply) to become recognised in the scheme rules for a registered testing laboratory.

Representatives of the Registered Testing Body involved in the scheme shall regularly participate in meetings of the joint working group. Participants shall participate on a regular basis in the coordination activities within the framework of these scheme rules.

The laboratory shall have recent experience with test procedures (conditioning, ageing and measuring according to product specifications) according to the specific product standards.

Having met the registration requirements, the applicant laboratories shall be registered and get Certificate of registration valid for 3 years. The Certificate of registration will show the registered characteristics of the testing laboratory according Table 1. The prolongation of the certificate is only possible on the basis of positive inter-laboratory comparative tests of the registered characteristics during the last three years and at least one positive surveillance audit within a period of 6 years.

The registration shall be published on the website <http://www.keymark.eu>.

4.2 The "Laboratory Group"

4.2.1 Requirements

The "Laboratory Group" care about Characteristics according to table 1 for insulation products for building equipment and industrial installations and is the group of all registered laboratories in this field (Appendix B2). The members shall fulfil all the requirements of a registered testing laboratory according section 4.1.

With the following additional requirements:

- Must be able to demonstrate experience of testing, involving at least 5 families of insulation materials.

4.2.2 Tasks

- To organize and take part in comparative tests with registered laboratories.
- To report the final outcome of comparative testing within a fixed time schedule.
- To give expert advice on particular issues.
- To provide reference samples test specimens with measured values, for comparative testing between registered laboratories.
- To audit registered laboratories.

4.3 Requirements for testing laboratories (other characteristics)

Testing laboratories responsible for testing characteristics not included in Table 1 shall be accredited in accordance with EN ISO/IEC 17025 or act as sub-contractors to certification bodies.