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appendix b requirements for bodies engaged in certification testing and inspection (2019-04).doc

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.

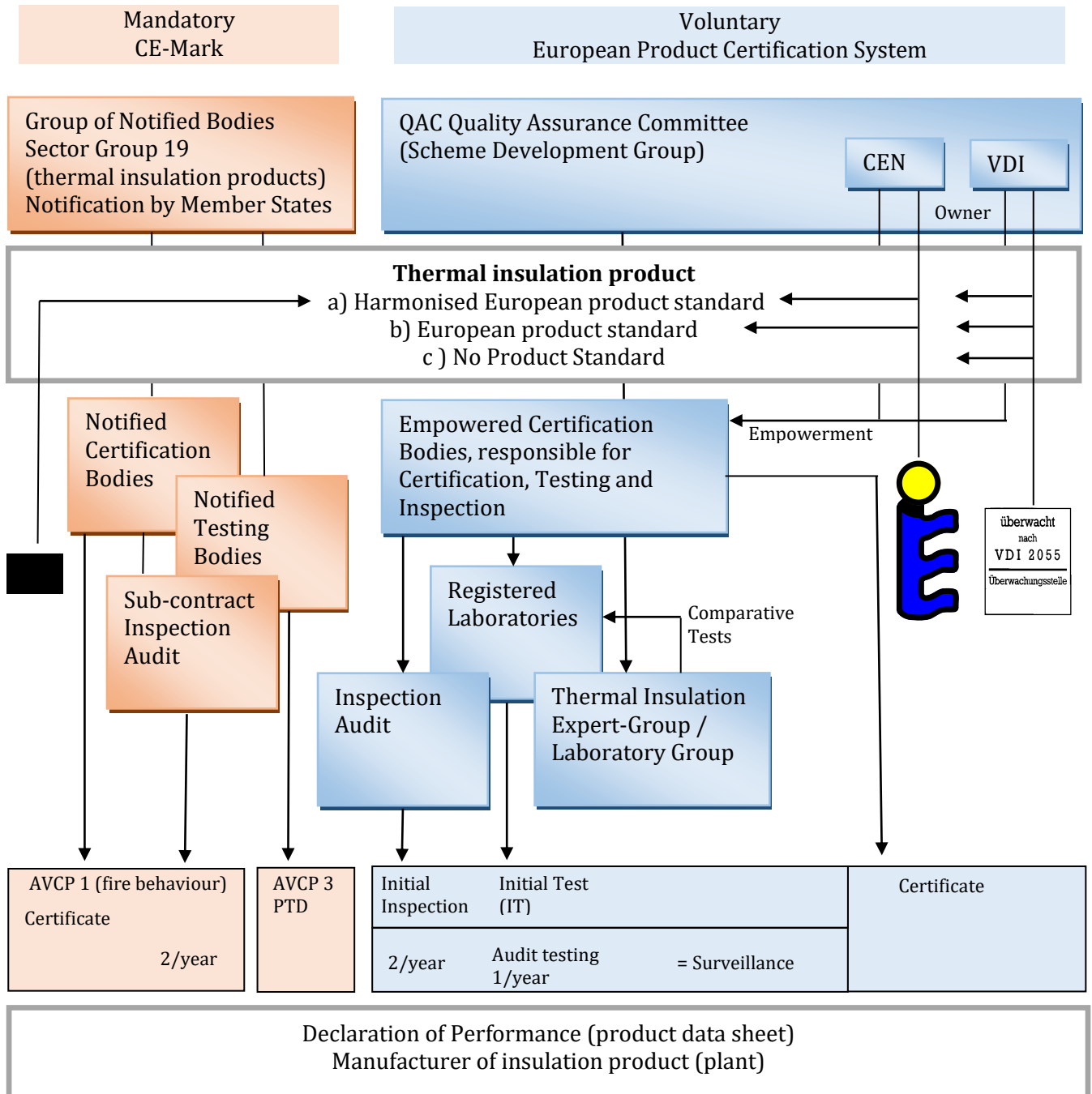


Figure 1: Relationships between parties involved in CE-marking and voluntary Product certification



2 Requirements for Certification bodies (Empowered)

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 KEYMARK scheme is intended to be operated.

They shall obtain the contractual permission to operate a KEYMARK product certification scheme leading to the granting of the KEYMARK (“empowerment”), as issued by CEN Certification Board. 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, 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.

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

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.
- 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 KEYMARK 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
Buildings	Thermal Conductivity at 10 °C (EN 12667, EN 12664, EN 12939)	Mean temperature 10 ± 0.3 °C Thermal Conductivity ± 1.5 % ¹
	Compression (EN 826, EN 12431)	criteria to be defined later
	Dimensional stability (EN 1604)	criteria to be defined later
	Creeping (EN 1606)	criteria to be defined later
	Tensile strength perpendicular to faces (EN 1607)	criteria to be defined later
	Water absorption (EN 1609, EN 12089)	criteria to be defined later
	Water vapour permeability (EN 12086)	criteria to be defined later
	Bending (EN 12089)	criteria to be defined later
	Shear stress (EN 12090)	criteria to be defined later
	Point load (EN 12430)	criteria to be defined later
	Acoustic (EN 29052-1, EN ISO 354 and EN ISO 11654)	criteria to be defined later
	Air flow resistance (EN 29053)	criteria to be defined later
	Building equipment and industrial installations	Thermal conductivity curve (Flat products EN 12667, TS 15448-1)
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 or Pipe testing EN 14707)		$\pm 0,5$ % deformation at a chosen temperature
Chloride content (EN 13468)		± 1.5 ppm

¹ The $\pm 1.5\%$ shall be obtained when testing the materials EPS (EPS 30) and MW (glass fibre board) in thickness 50 mm and 100 mm. Other deviations might be chosen for other materials or other thicknesses. This value is subject to evaluation by the "Thermal Insulation Expert Group".

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	<p>Water Vapour Transmission properties (Flat EN 12086 or Pipe testing EN 13469)</p>	<p>criteria to be defined later</p>
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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 annex A of scheme rules document for the requirements for manufacturers, and the separate document Appendix B1. 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 approx. every third year.

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 "Thermal Insulation Expert Group" and the "Laboratory Group"

4.2.1 Requirements

The "Thermal Insulation Expert Group" care about Characteristics according to table 1 for insulation products for Buildings (Appendix B1). 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 of both groups 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.



- Thermal conductivity measurements used for the purpose of the “Thermal Insulation Expert Group” shall be done with an identified reference Guarded Hot Plate equipment.

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.