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appendix b requirements for bodies engaged in certification testing and inspection (2016-11).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.

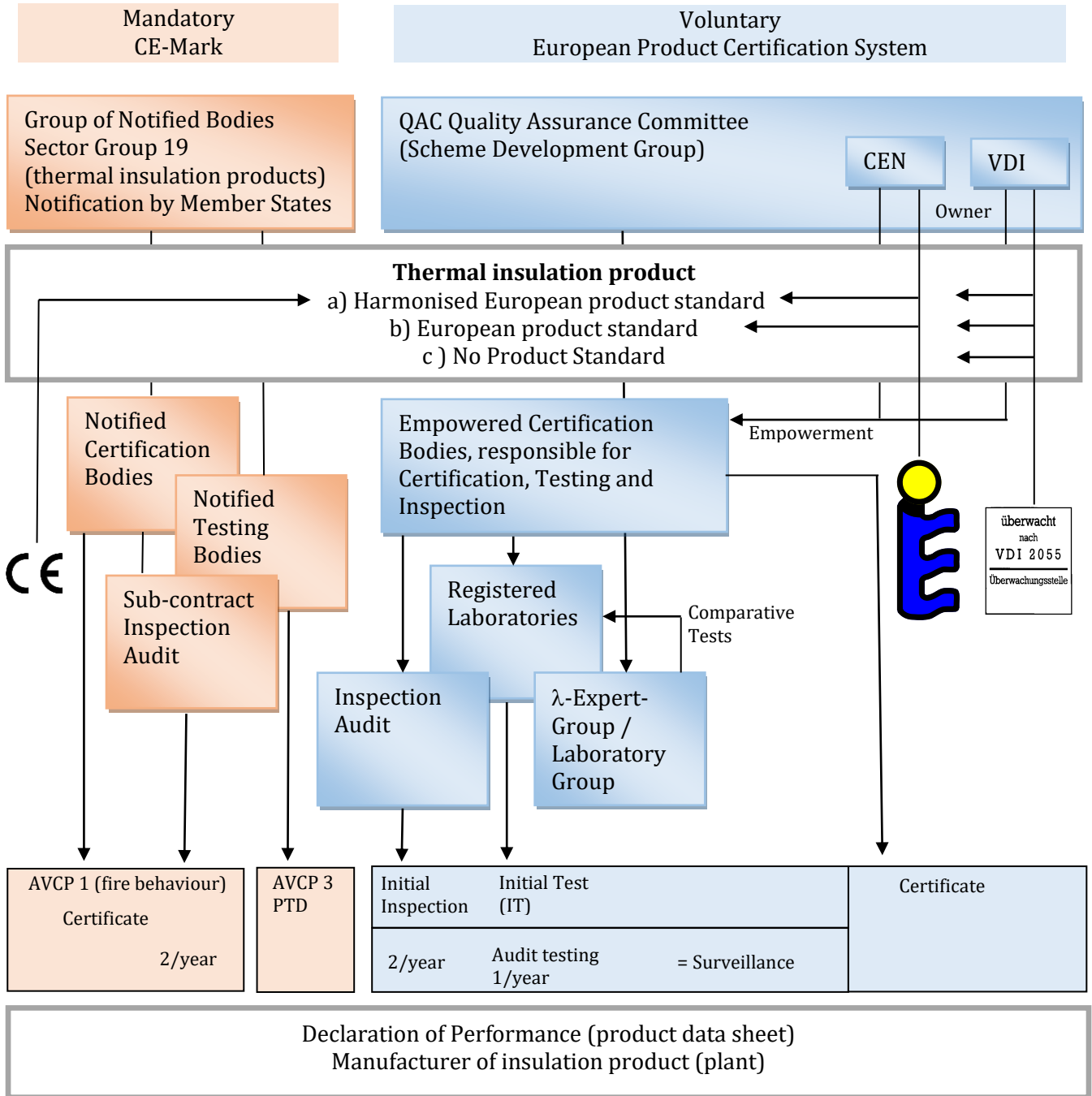


Figure 1: Relationships between parties involved in CE-marking and voluntary Product certification



## 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 [www.insulation-keymark.org](http://www.insulation-keymark.org).

## 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
<b>Buildings</b>	Thermal Conductivity at 10 °C	Mean temperature $10 \pm 0.3$ °C Thermal Conductivity $\pm 1.5$ % <sup>1</sup>
<b>Building equipment and industrial installations</b>	Thermal conductivity curve (Flat products)	$\pm 3$ % for the temperature range from -180 °C up to 500 °C  $\pm 5$ % for temperatures above 500 °C
	Thermal conductivity curve (Pipe testing)	$\pm 3$ % for mean temperature range from -70 °C up to 300 °C
	Maximum Service Temperature (Flat or Pipe testing)	$\pm 0,5$ % deformation at a chosen temperature
	Chloride content	$\pm 1.5$ ppm
	Water Vapour Transmission properties (Flat or Pipe testing)	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 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 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.

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<sup>1</sup> 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 SDG 5.



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.

The registration shall be published on the website [www.insulation-keymark.org](http://www.insulation-keymark.org).

## 4.2 The “Expert Group” and the Laboratory Group

### 4.2.1 Requirements

The “Expert Group” do only care about the thermal conductivity at 10 °C for insulation products for Buildings. The Laboratory Group is the group of all registered laboratories for insulation products for building equipment and industrial installations.

The members of the “Expert Group” shall fulfil all the requirements of a registered testing laboratory (4.1) and the following additional requirements:


- Must be able to demonstrate experience of testing, involving at least 5 families of insulation materials.
- Measurements used for the purpose of the “Expert Group” shall be done with an identified reference Guarded Hot Plate equipment.

The members of the expert group should be chosen in such a way that all types of insulation products within the scope of the SDG-5 Keymark Scheme are covered, with a minimum of three experts for every product family. The number of designated members of the expert group shall optimally be between 6 and 10, dispersed throughout the CEN member countries.

### 4.2.2 Tasks

- To participate in an annual comparative testing programme within the expert group for the first three years of the scheme operation, and subsequently in a biennial comparative testing programme.
- To report the outcome of comparative testing on the identified reference equipment to the SDG-5 Implementation Group according to a fixed time schedule, within a maximum of 8 months from the start of the comparative testing.
- To organize and take part in comparative tests with registered laboratories as requested by the SDG-5 Implementation Group (Application form see Annex 2)
- To give expert advice on particular issues as requested by the SDG-5 Implementation Group.
- To provide reference samples test specimens with measured values, for comparative testing between registered laboratories.
- To audit registered laboratories as requested by the SDG-5.

The laboratory of a member of the “Expert Group” may also be a registered testing laboratory. In such cases the laboratory shall be able to demonstrate that there are documented procedures in place to ensure that there are no conflict of interest, confidentiality or impartiality between these two roles, and that information is not used to gain unfair business advantage.

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#### **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.