### Belgium

The building construction within Belgium is organized on federal and on local level. For the thermal legislation, regional requirements of Flanders, Wallonia & Brussels apply.

The fitness for end use of thermal insulation materials is of high importance for the Belgian construction sector. Upon request of the manufacturers, most insulation materials and systems are subject of a technical approval with certification (ATG), issued by an independent part and member of the UBAtc. Within the ATG system & product characteristics are evaluated within its end-use application and certified, taking into account the needs of Belgian stakeholders and under generally applicable conditions in Belgium.

The approval body UBAtc with his operator BCCA are holder of the voluntary reference scheme for the Belgian market. This scheme is based on the application of the EN standards and the evaluation methodology, especially concerning the determination of lambda values and thermal resistance.

In this context BCCA offers as Keymark empowered certification body a combined service of the Keymark certification and the Belgian approval with certification, ATG.

For manufacturers that dispose of test results according to the Keymark procedures, a technical approval with certification may be based on these results whenever relevant for the end use conditions.

The domains where this evaluation of fitness for use, based on European standards is applied are roofs, façade (ETICS, cavity, ventilated), floor and interior insulation.

The thermal energy requirements, as part of the national/regional building requirements are in place and are published on website regional websites.

Further assistance and information can be sourced on:

- Regional requirements:
  - o Flemish region www.energiesparen.be
  - Brussels region http://www.leefmilieubrussel.be
  - Wallonne region http://energie.wallonie.be
- Voluntary support scheme:

UBAtc: www.ubatc.beBCCA: www.bcca.beBBRI: www.bbri.be

Ministery: <a href="https://economie.fgov.be/en/themes/enterprises/construction-products">https://economie.fgov.be/en/themes/enterprises/construction-products</a>

#### Denmark

In Denmark NO voluntary product certification scheme is operational.

As such the KEYMARK certified product can be commercialized without further testing.

The thermal energy requirements, as part of the national/regional building requirements are in place and are published on website <a href="http://bygningsreglementet.dk/~/media/Br/BR-English/BR18">http://bygningsreglementet.dk/~/media/Br/BR-English/BR18</a> Executive order on building regulations 2018.pdf

Further assistance and information can be sourced on:

- http://bygningsreglementet.dk/~/media/Br/BR-English/BR18\_Executive\_order\_on\_building\_regulations\_2018.pdf
- National support scheme: http://bygningsreglementet.dk/~/media/Br/BR-English/BR18 Executive order on building regulations 2018.pdf
- Ministery: Trafik-, bolig- og byggestyrelsen, <u>www.tbst.dk</u>

## <u>Finland</u>

In Finland NO voluntary product certification scheme is operational.

As such the KEYMARK certified product can be commercialized without further testing.

The thermal energy requirements, as part of the national/regional building requirements are in place and are published on website <a href="http://www.ym.fi/en-us/Land">http://www.ym.fi/en-us/Land</a> use and building/Legislation and instructions.

Further assistance and information can be sourced on:

- http://www.ym.fi/en-US/Land use and building
- National support scheme: <a href="http://www.ym.fi/en-US/Land-use-and-building">http://www.ym.fi/en-US/Land-use-and-building</a>

#### **France**

In France, thermal insulation products for building application according to EN 13162 to 13171 and insulation products for industrial application (series EN 143XX) can be distributed and sold without further testing as in other European countries; as far accompanied with the CE-mark and valid test reports. Additionally the KEYMARK is an extra proof that indeed all declared values are 3<sup>rd</sup> party surveilled and tested.

For traditional products and techniques the standards called NF DTU proposes standard clauses for works contracts. A traditional product is a product commonly used by most companies, successfully over a sufficient period of time.

A contract between Project manager and project owner can include reference to NF DTU or reference to 'Avis technique'. This contract is the base for the French insurance system on building (10 year)/

The ACERMI, 'Association pour la CERtification des Matériaux Isolants', offers as Keymark empowered certification body the Keymark certification

Further assistance and information can be sourced on the following websites:

- Thermal requirements: https://www.rt-batiment.fr/batiments-neufs/reglementation-thermique-2012/presentation.html
- Voluntary support scheme:

o ACERMI: <a href="http://www.acermi.com/">http://www.acermi.com/</a>

o LNE: <a href="https://www.lne.fr/en">https://www.lne.fr/en</a>

CSTB: <u>http://www.cstb.fr/en/cstb/missions-activities/</u>

### **Germany**

In Germany different voluntary product certification schemes is operational and covering several area's from "the product" to "the product as part of a system within its end-use".

In general insulation products according EN 13162 to 13171 can be distributed and sold without further testing. But for application there are existing minimum requirements. The administrative frame are the 16 "Landesbauordnungen (LBO)" and the "Verwaltungsvorschriften technisches Bauen (VVTB)". The application standards (DIN 4018-2, DIN 4108-4 and DIN 4108-10 are introduced by the building authorities of the 16 "Bundesländer" (engl. counties).

The application standards in details are:

- DIN 4108-2: Thermal protection and energy economy in buildings Part 2: Minimum requirements to thermal insulation
- DIN 4108-4: Thermal insulation and energy economy in buildings Part 4: Hygrothermal design values
- DIN 4108-10: Thermal insulation and energy economy in buildings Part 10: Application-related requirements for thermal insulation materials Factory made products

For the applications which are covered by DIN 4108-2;-4;-10 architects, structural engineers or contractors ask for a voluntary quality mark. For applications, not covered by DIN 4108-10, the planer, contractor, system supplier or construction company need for these applications a technical documentation. A voluntary certificate acc. to a certification scheme is very helpful for the above mentioned persons or companies. These certificates summarizing all necessary information within one document.

Examples for such applications are:

- Thermal Insulation for ETICS
- Thermal Insulation for Perimeter insulation systems
- Thermal Insulation for inverted roofs as parking deck or green roof
- Thermal Insulation as load bearing layer under foundation slabs

Not every application is covered by the different schemes. But the principles of the KEYMARK scheme can be helpful at the same time to evaluates the product in its end-use towards the national thermal requirements in place. The schemes, with the list of certified products, are available on request at different certification bodies.

Further assistance and information can be sourced on the following German websites:

- DIBt: https://www.dibt.de/en/
- Voluntary certification:
  - o FIW: http://www.fiw-muenchen.de/en index.php
  - DINCERTCO: https://www.dincertco.de/en/dincertco/produkte\_leistungen/zertifizierung\_produkte/bauwesen/daemmstoffe\_gebaeude/daemmstoffe\_gebaeude.html
  - MPA NRW: <a href="https://www.mpanrw.de/dienstleistungen/waermedaemmstoffe/">https://www.mpanrw.de/dienstleistungen/waermedaemmstoffe/</a>
  - o MPA Stuttgart: https://www.mpa.uni-stuttgart.de/index.en.html

## **Norway**

In Norway NO voluntary product certification scheme is operational.

As such the KEYMARK certified product can be commercialized without further testing.

The thermal energy requirements, as part of the national/regional building requirements are in place and are published on website <a href="https://dibk.no/byggereglene/">https://dibk.no/byggereglene/</a>

Further assistance and information can be sourced on:

- https://dibk.no/byggereglene/
- National support scheme: <a href="https://dibk.no/byggereglene/">https://dibk.no/byggereglene/</a>
- Ministery : Direktoratet for byggkvalitet

#### <u>Poland</u>

In Poland NO recognizable voluntary product certification scheme is operational for thermal insulation products. Generally, almost all certification bodies have their own voluntary product certification scheme, but these schemes are not practically used any more.

As such the KEYMARK certified product can be commercialized without further testing.

The thermal energy requirements, as part of the national building requirements are in Act: "Obwieszczenie Ministra Infrastruktury i Rozwoju z dnia 17 lipca 2015 r. w sprawie ogłoszenia

jednolitego tekstu rozporządzenia Ministra Infrastruktury w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie" (Dz.U. 2015 poz. 1422) and are published on website (only in Polish):

http://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20150001422/O/D20151422.pdf

Further assistance and information can be sourced on:

- https://www.miir.gov.pl/en/site/polish-national-contact-point-responsible-businessconduct/
- National support scheme: OECD National Contact Point
- Ministry: Ministry of Investment and Economic Development

# <u>Sweden</u>

In Sweden NO voluntary product certification scheme is operational.

As such the KEYMARK certified product can be commercialized without further testing.

The thermal energy requirements, as part of the national/regional building requirements are in place and are published on website <a href="https://www.boverket.se/en/start/">https://www.boverket.se/en/start/</a>

- Further assistance and information can be sourced on: https://www.sp.se/sv/index/services/internationell\_cert/Sidor/default.aspx
- National support scheme: <a href="https://www.boverket.se/en/start/">https://www.boverket.se/en/start/</a>
- Ministery: Boverket, <u>www.boverket.se</u>