

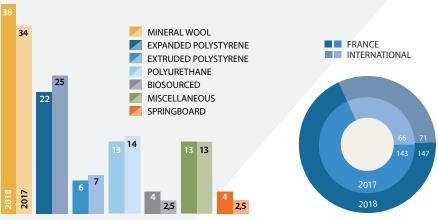
Association pour la CERtification des Matériaux Isolants newsletter

N°11 JULY 2019



#### 868 valid certificates (837 in 2017)

- The distribution of ACERMI certificates is stable, with a diversity of certified products..
- ■147 plants manufacturing certified products **>** (71 international) compared with 143 (66 international) in 2017.



Distribution of certificates by product family

Plants audited

#### Search for insulation materials by end use

Since March 2018, manufacturers can declare the specific uses of the insulation materials they manufacture. To do this, they must notify ACERMI of the type of use for each of their products. Example: When a contractor uses the search engine to look for products to insulate a roof space, or a wall or floor, insulation materials for each specific use are displayed. So far, 372 out of 868 certificates have included the product usage.

- 216 for "floors and flooring"
- 110 for "internal wall insulation"
- 99 for "external wall insulation"
- 101 for "structural insulated panels"
- 72 for "partition walls"
- 139 for "sloped and flat ceilings"
- 28 for "flat roofs"

Work continues to add new types of uses to the search engine, including insulation in ballasted roofs, which will be available in 2019.

# Recognition of ACERMI audits and tests in Germany

In 2017, ACERMI and FIW München\*
—the German research institute and testing, monitoring and certification authority—signed a partnership for mutual recognition of audits and tests.

This recognition by two of Europe's most

trusted institutions is the first step in the deployment of audit and test methods across the continent. For industrial companies, it makes it unnecessary to undergo duplicate audits and tests, lowering costs and shortening processing periods.

\*FIW - Forschungsheim für Wärmeschutz e. V. München

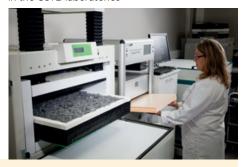




The ACERMI quality certification is awarded by the Association pour la CERtifiation des Matériaux Isolants, a French non-profit organization (association loi 1901) established in 1983 by the CSTB and LNE. The certification enables insulation professionals to demonstrate the performance of their products following a testing, inspection and auditing procedure.

# Springboard

Thermal conductivity measurement in the CSTB laboratories



### to the development of European standards,

ACERMI is deeply involved and often a pioneer in the development of new assessment methods when an insulation product or its intrinsic performance are not covered by European product standards. ACERMI then offers specific technical specifications to certify the product. These technical specifications are developed through the research and experience of ACERMI laboratories. When the development of a standard is decided at the European level, ACERMI provides European experts with the assessment methods developed pilot laboratories.

#### Springboard: certification of innovative products

Besides recognizing the thermal performance of new insulation materials, Springboard certification paves the way for market launch.

One of the missions of the Association pour la CERtification des Matériaux Isolants (ACERMI) is to support the launch of new insulation materials and technologies. This is what Springboard (Tremplin in French) certification has been doing since its creation in 2013. Thirty-two Springboard certificates have been issued since then for 16 product families.

Springboard consists of ACERMI technical specifications that enable manufacturers to

promote their emerging and innovative products, like biosourced materials, by certifying their thermal performance and, if applicable, their thickness, emissivity and compaction. This certification speeds their entry and recognition on the market. ACERMI is especially attentive to its industrial customers but also listens closely to specifiers of insulation materials who must make choices for projects entrusted to them by owners.

#### Springboard: the right solution for VSEs...

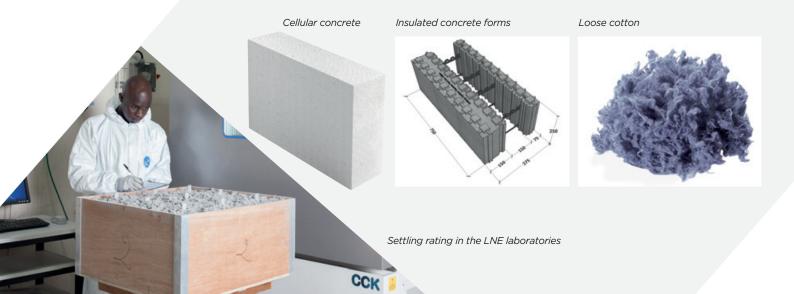
Many VSEs are developing new products but lack the resources to set up internal procedures and prepare themselves to obtain ACERMI certification. Springboard certification gives them a three-year transition period during which ACERMI guides them as they develop their internal quality and control procedures.

After this period, the Springboard certification becomes an ACERMI certification that is added to the 18 existing Product Guidelines on the website www.acermi.com under "Reference documents." This certification becomes the reference for a new product family and includes criteria in addition to thermal performance, such as mechanical strength and fire resistance.

#### ...and a demand of major contractors

Major contractors also apply for certification using Springboard technical specifications, especially for innovative products that do not yet have European standards, such as vacuum insulation products.

**Products with Springboard certification today:** cellular concrete, insulated concrete forms, rafter-type panels, loose cotton, vacuum insulation, polyester wadding, polyester fiber, sandwich panels, insulating shuttering blocks, bulk polystyrene beads, perforated expanded polystyrene and thermal breaks.



New

Facing

ACERMI certifies composite insulation materials with integrated facings

Since January 2019, ACERMI has been certifying products made of an insulation material and its single or double facing. This simplifies the certification process for industrial companies.

Previously, the ACERMI reference system only covered the assessment criteria for the insulation material (sometimes combined with a membrane or kraft paper). Now, ACERMI considers the overall performance of composite insulation, particularly thermal resistance, that includes the facings.

Greater clarity of thermal resistance characteristics of products on the market The principle: Certification of an insulation/facing combination results in a clarified overall thermal resistance characteristic for the "composite system" or "sandwich panel" product.

Responding to the needs of industrial companies

ACERMI is adapting to the changing insulation material market by offering two new standards.

ff considers the overall performance of composite insulation ""

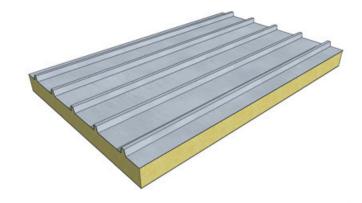
Composite systems are now ACERMI certified. They are only used indoors. This insulation system consists of a rigid facing made of plasterboard and an insulation material. Instead of a double certification—ACERMI (only for the thermal resistance of the insulation material) and QB (for other characteristics)—ACERMI now certifies all the characteristics. Industrial companies can now call on a single certification body, ACERMI, for the entire composite insulation. This saves time and lowers costs for the certification applicant. The new ACERMI PG 18 standard appears on acermi.com.

Sandwich panels transition from Springboard standard to ACERMI Product Guideline. Sandwich panels consist of two metal sheets positioned on either side of the insulation material. They are used in commercial buildings, for example, as part of external cladding and warehouse roofs. Because there is a harmonized standard for product assessment and the sandwich panel family has become more mainstream, ACERMI created the PG 17 standard, making it possible to certify the thermal and mechanical characteristics and reaction to fire of sandwich panels. The new ACERMI PG 17 standard appears in the section "Apply for certification."



**I** Industrial companies

body, Acermi JJ





### Insulation & Uses

## Insulation materials in timber framed structures

Timber-framed structure systems are a fast-growing construction technique thanks to quick installation and the possibility of prefabricating the panels.

This construction system is for erecting vertical load-bearing walls in new and renovated buildings. It consists of solid wood studs; bracing panels; semi-rigid insulation material made of fibrous material in one or two layers placed between (front and rear) the studs; a vapor barrier on the inner side of the insulation material; an outer rainscreen; and inner and outer coatings.

The most commonly used insulation materials are panels and semi-rigid mineral wool rolls, although other types are acceptable (polystyrene, polyurethane, cellulose wadding, etc.).

The thermal performance of this system depends on the thermal resistance of the insulation material as well as the section and frequency of structural frame elements. These thermal bridges can deteriorate to varying degrees depending on the position of the insulation material. However, this system has the advantage of permitting installation of insulation material with wide thicknesses between 120 and 200 mm.

#### Rules to follow

The construction of walls with timber framed structures must be performed in accordance with the detailed guidelines in the NF DTU 31.2 standard for the construction of timber framed houses and buildings. Special care is required to minimize the risk of condensation. For this, it is essential to ensure good water vapor tightness on the inner side to limit the ingress of moisture generated in rooms through the wall.

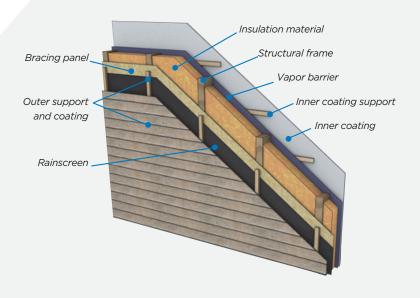
#### Durability and performance during use

Insulation material may be exposed to rain during its use. It must therefore have suitable water resistance. Although it does not affect the mechanical resistance of the system, the insulation material used must also support its own weight during installation and remain fixed by insertion between timber frames. Its natural size variations added to the moisture and temperature effects must be limited based on the type of insulation material used.

The durability of the structure depends on maintaining the continuity of the moisture sealing plane during installation and throughout the life of the structure.

For an insulator to be certified by ACERMI for use in timber framed walls, its performance under the stress conditions listed above are checked by ACERMI. The search engine on the ACERMI website (www.acermi.com) includes a use criterion for selecting certified insulation materials for use in timber framed walls. So far, 67 ACERMI certificates for this use are available and downloadable from the website.

Once the insulation product has been selected, all that remains is to follow the installation guidance (Building Code of Practice (DTU), Technical Appraisals, etc.) to achieve effective and durable thermal insulation.



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