



The Springboard Guidelines are accelerating the certification of insulation materials

The new Springboard Guidelines have shown just how effective they are in helping new families of insulation products to have their thermal values certified by Acermi.

When ACERMI launched its Springboard Guidelines at the end of 2013, the goal was clear: to enable emerging companies and their insulation products to have the benefit of thermal resistance certification quickly and efficiently. The traditional certification procedure does not always enable a rapid response to the needs of manufacturers or the market, because it takes around two years to develop product guidelines.

Whilst remaining fully consistent with the General Guidelines, the Springboard Guidelines adapt to meet the technical constraints of manufacturers. The process involves two in-plant audits per year, on-site sampling and laboratory testing.

The Springboard Guidelines apply to families of insulation materials that are not covered by existing ACERMI Product Guidelines. By addressing only those characteristics directly related to thermal performance (thickness, thermal conductivity, thermal resistance, emissivity, settling and aging, as required), the Springboard Guidelines make it possible to gain certification for a three-year non-renewable period. The certification procedure is limited to a maximum of four months from receipt of full technical documentation, except for products requiring tests that by their nature require a longer period of time (aging, settling, etc.) or must be submitted

for a Technical Assessment or DTA. The three-year period is then used to prepare specific product guidelines as the basis for full certification.

Since they were first introduced, the Springboard Guidelines have gained further appendices covering the specialist sectors of formwork blocks, vacuum insulation products and insulating concretes.

Products submitted for thermal performance certification must previously have demonstrated their suitability for purpose. This is why the Springboard Guidelines apply only to those products covered by a Technical Assessment, Technical Application Document, DTU, Type A ATEX or even professional rules demonstrating that the product contributes to improving the thermal performance of a structure by increasing its thermal resistance by at least 0.25 m².K/W.

15 products certified in 2 years

So far, the Springboard Guidelines have enabled the certification of thermal resistance for 15 products in the following categories:

CATEGORY	NUMBER OF CERTIFICATES	DATE
Bulk cotton and recycled cotton	3	2013-15
Perforated EPS	2	2015
Bulk wood fiber	1	2014
Polyester fiber	1	2014
Lightweight autoclaved cellular concrete	1	2014
Insulating sandwich panels	6	2015
Insulating formwork blocks	1	2014

More specifically, testing programs have been approved for all the following products: bulk textile fibers (cotton), polyester fibers, insulating formwork blocks, self-supporting pitched roof insulation panels, bulk cellular glass, perforated EPS, bulk wood fiber, cellular concrete, insulating sandwich panels, vacuum insulating panels and hemp concretes.

ABOUT ACERMI

ACERMI quality certification is granted by the Association pour la **CER**tification des **Mat**ériaux **Isolants**, a non-profit organization (association loi 1901) formed in 1983 by the CSTB and LNE.

It enables all insulation professionals to demonstrate the performance of their insulation products to achieve certification on completion of testing, inspection and auditing.



Manufacturers choose ACERMI

PEG, THE POLYESTER FIBER INSULATION MANUFACTURER

A real advantage for market-testing an innovative product under the best possible conditions

The Springboard Guidelines have been decisive in enabling rapid performance validation for our new products. A motivating factor for moving forward with ATec certification at the same time.

PEG has a 150-year history as a specialist in using non-woven techniques to protect people against the cold, and expanded into the building thermal insulation market eight years ago. The company offers 100% polyester fiber products manufactured 60% from recycled plastic bottles.

Produced at Dénestanville, near Dieppe, its ECOPEG®39 and ECOPEG®35 products are the result of in-house research and development, and deliver the levels of performance suggested by their names: thermal conductivity values of 0.039 and 0.035 W/m.K as validated by LNE (the French National Metrology and Test Laboratory). "We began by applying for the CE mark," explains Selim Zahour, the company's Production Manager and R&D Coordinator. "But it soon became apparent to us that that wouldn't be enough. At the same time, with no certainty about the future our product would have in what is an exceptionally competitive world, we were

hesitant to engage with the labor-intensive and lengthy traditional path of ACERMI certification. So the introduction of the Springboard Guidelines was the clincher for us."

This simplified, but recognized, procedure gave PEG access to commercial benefits that are simultaneously essential and indisputable. It also seemed both logical and necessary to embark on the ATec certification application process at the same time.

"The award of certification for three years gives us the reassurance we need to test the market backed by the credibility of a universally accepted quality mark," continues Selim Zahour. "It also allows us the breathing time we need to consider possible developments. We can now put in place the processes needed to ensure the successful marketing of ECOPEG®39 and 35: the first was granted certification in December 2014, and the second received a positive recommendation in summer 2015." The ECOPEG® product range is targeted primarily at architects. We now have to convince trade specialists and contractors of the advantages offered by our range: easy to fit with no need for gloves or masks because it

ECOPEG®39 and ECOPEG®35

A 100% polyester fiber insulation product produced 60% from recycled plastic bottles

ECOPEG®39

λ of 0.039 W/m.K, available as rolls (5.4 m) and panels (1200x600 mm) in thicknesses from 50 to 100 mm

ECOPEG®35

λ of 0.035 W/m.K, available as panels in thicknesses from 45 to 120 mm

PRODUCTION

Production: the Dénestanville plant

FOR MORE INFORMATION ABOUT PEG SA www.peg-isolation.fr

poses no health risks, technical properties that remain constant over time, and a completely recyclable product.

As an added bonus, the Springboard Guidelines have given the PEG management team the opportunity to familiarize themselves with all the requirements of the certification process. What could be more reassuring for the next stage and certification of a new PEG product with thermal conductivity of 0.032 W/m.K!



SELIM ZAHOUR PEG



Manufacturers choose ACERMI

CHAUSSON MATÉRIAUX AND ISOLASUP EVOLUTION An ACERMI-certified insulating formwork block system



SYLVESTRE BERNAT
CHAUSSON MATÉRIAUX

This technical innovation developed and manufactured by CHAUSSON Matériaux passes the same validation tests as traditional solutions.

In mid-2012, CHAUSSON Matériaux acquired ISOLASUP, an innovative construction system based on insulating formwork blocks produced from Neopor® EPS (expanded polystyrene). The original system was substantially modified in 2013 to deliver an effective response in earthquake zones by imposing a concrete shell of 15 cm, and to enable the use of standard size joinery.

"ISOLASUP Evolution allows us to offer a complete construction system with integral insulation that is covered by a Technical Assessment," explains Range Development Manager Sylvestre Bernat.

But the range also needed certified thermal insulation values to take on the market and convince potential customers. Until 2013, the absence of guidelines designed to assess the thermal value of composite systems like insulating formwork blocks prevented their certification. Aware that the increasingly demanding requirements introduced by successive Thermal Regulations in France triggering the emergence of new construction solutions, ACERMI then created its Springboard Guidelines to support these changing needs.

"We were the first insulating formwork block manufacturer to undergo this assessment. It's perfectly suited to the certification of our system, which combines high-performance and very high performance insulation with extremely low air permeability and structural concrete. At the end of 2013, I was also able to put the required documentation together quickly, thanks to the clear guidance provided in the procedure published by ACERMI. The tests, audits and simulations validated the λ

ISOLASUP

PRODUCTS Formwork blocks in BASF Neopor® graphite EPS
Polypropylene spacers
15 cm concrete shell

THERMAL RESISTANCES 30 block ▶ 4.26
37.5 block ▶ 6.68
45 block ▶ 9.10

FINISHED ASSEMBLY λ 0.031 W/m.K

target value of 0.031 W/m.K. Based on this result, the CSTB then calculated the sources of heat loss at individual points, such as wall/floor, wall/window/door joints, etc. We then had everything we needed to have our design office conduct a comprehensive thermal study. To the best of my knowledge, we are still the only company to benefit from this combination of ACERMI-certified values and CSTB calculations."

So the ACERMI Springboard Guidelines now make it possible to assess systems that offer an alternative to traditional solutions and publish their validated performances on the basis of indisputable criteria. Sylvestre Bernat sees this as an essential benefit for "giving an emerging system the opportunity to be compared with traditional offerings on a level playing field. That's essential for gaining recognition in the market and ensuring the growth of our company."

NATHALIE TCHANG - DIRECTOR AND PARTNER OF TRIBU ÉNERGIE Releasing the brakes for a new starting point

Building designers are strongly encouraged to use innovative systems and involve non-standard products in their projects. But at the same time, that doesn't mean ignoring certain requirements, because in a performance-focused process where project managers are increasingly required to provide guaranteed results, it's essential that we feel reassured about the choices we make. This reservation applies not only to project managers, but also to building control inspectors and everyone who has responsibility for all or part of the process. So much so, in fact, that now, the labeling of buildings is standard practice, requiring the use of products and systems whose performance claims are certified.

So any initiative in this direction - and that includes the introduction of the Springboard Guidelines - is welcome progress. These guidelines are designed to give specifiers reliable and secure information about product performance.

And although the resources we have available, such as the TH-Bat regulations, cover a very broad scope of possibilities giving us access to default values for almost every situation, a value tested and supported by certification is much more relevant. The introduction of the Springboard Guidelines therefore marks a real advance, especially since it helps to identify those manufacturers who are not content to make sometimes staggering claims in self-certifying the performance of their products in the absence of standards.

This certification should not be the end of the story. We know that design goes rather further than simply thermal insulation, and involves acoustic insulation and fire resistance. So it's important that the Springboard Guideline stage should be associated with others, such as the Technical Assessment.



The Springboard Guidelines: an appropriate procedure

The ACERMI certificate issued on completion of the procedure described in the Springboard Guidelines has the same value as all certificates issued by ACERMI. The Springboard Guidelines provide a level of analysis appropriate to those products that do not fall within the categories covered by existing guidelines. The process is very similar to the standard process, and differs only in the development of tests. It begins with the submission of a request to ACERMI using a downloadable form (the ACERMI Springboard certificate application form at: <http://www.acermi.com/documents-reference/formulaires>).

The response to this request takes the form of a process instituted by the application sponsoring organization (CSTB or LNE) to fully understand the nature and characteristics of the product. This involves an analysis and the compilation of technical documentation focused essentially on the thermal performance characteristics and behavior of the material or process concerned. In all cases, this will include measures of thermal conductivity and resistance, as well as data on material thickness and, where appropriate, its settling, emissivity and aging properties.

This information is required to identify the type of tests that will be applied to the material or product. These tests are developed on the basis of existing tests used for other products. The aim here is to harmonize requirements.

The tests identified and proposed at the end of this phase are then submitted to the Certification Committee. The Certification Committee will then either agree them or suggest changes, which, if necessary, leads on to a second submission of the protocol.

The Certification Committee will then either agree them or suggest changes, which then leads on to a second submission of the protocol. Once the protocol has been validated in this way, the sponsoring organization conducts the tests and forwards the results to the Certification Committee, which then validates the certification for three years.

During this time, the manufacturer must comply with the requirements of the guidelines, which specifically involves the taking of six samples, for which the analytical results must be provided. The analyses can be conducted



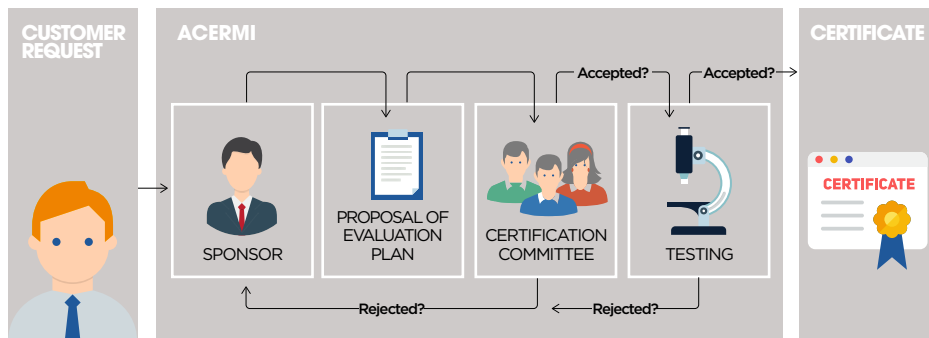
using its own resources or entrusted to a third party (for example, with the assistance of another suitably equipped facility).

The three years are used to prepare standard product guidelines, which normally takes an average of two years. The three-year period also gives time for product feedback to be gathered and to register other certificates for products from the same family, which could contribute to the preparation of shared guidelines.

At the end of the three years, the family either has its own specific guidelines, or the experiment is halted if it proves inconclusive.

View the Springboard Guidelines at:

www.acermi.com/doc/referentiels/referentiel-tremplin.pdf



SCHEDULE

2-6 NOVEMBER 2015 **Salon Batimat** Paris Nord Villepinte

