ACERMI & INSULATION PROFESSIONALS

Association pour la CERtification des Matériaux Isolants newsletter – N°7 – APRIL 2017

Growth in the business and evolving of technical specifications: a look back at a rich and constructive year

Constant improvement

The number of ACERMI certifications has increased significantly (9%), from 749 in 2015 to 816 in 2016, while the number of companies holding certificates also rose, from 118 to 125.

Other trends indicate a diversification in the type of products certified and an openness to new insulation materials. This was due in part to the Springboard certification (*Tremplin*) which enable emerging products (accounting for 3.6% of total certifications in 2016 vs. 0.3% in 2013) to obtain certification and facilitate their recognition on the market. As for traditional insulation materials, they were stable or slightly up despite a few voluntary withdrawals.

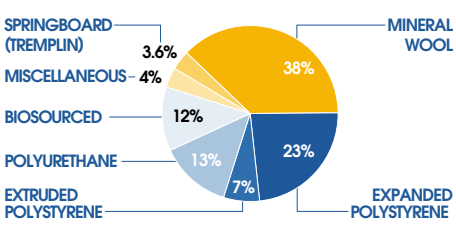
European recognition...

An absolute reference on the French market, the ACERMI certification is now gaining recognition at European level as well. Proof? Out of the 138 plants making ACERMI-certified products, 62 are located outside of France – that's almost half! How? By building on the European technical specifications. To adapt to the needs and trends of the insulation materials sector, ACERMI creates reliable technical specifications adapted to the assessment of innovative products, drafting them to be recognized at European level, as well.

... that is well-deserved

An independent third-party certification body, by its very nature legitimizing the outcome of the certification, ACERMI has the added distinction of managing the "ISOLE" classification, a link between the intrinsic value of the product and its use in construction. The French *Documents Techniques Unifiés* (Unified Codes of Practice) or Technical appraisal (fitness for use) used in the building industry require this classification, whereas at European level, CE marking simply provides the intrinsic performance of the product. ACERMI goes further: its requirement and warranty levels are now a benchmark recognized outside of France.

Find out more: Annual Report 2016
www.acermi.com/en/qui-sommes-nous/publications/



SUCCESS OF THE SPRINGBOARD TECHNICAL SPECIFICATIONS: DEMONSTRATION

The Springboard (Tremplin) Technical Specification were created by ACERMI to qualify products not covered at European level, and often developed by SMEs/VSEs. It fills a void and enables these innovative products to enter the market.

The Springboard certification focuses exclusively on thermal performance, the critical distinction for an insulation product. The certificate can be renewed for three successive years in its "springboard" version. Next, ACERMI develops a technical specification for the new family of products, and then gives the manufacturer the possibility of obtaining the conventional ACERMI certificate which incorporates mechanical characteristics, water resistance and water vapor transmission.

ACERMI is breaking new ground by certifying products in a variety of shapes, such as insulation for rolling shutter boxes, insulated concrete forms (ICFs) and sandwich panel insulation. In this way, the manufacturer highlights the thermal properties of its insulation materials, thereby avoiding the use of default values, which are always less advantageous.

Going from the ACERMI Springboard certification to the ACERMI certification

Added in 2014 to the Springboard Technical Specification for the characterization of the thermal performance of their insulating cores, sandwich panels now have their own ACERMI "product" technical specification.

For this purpose, ACERMI has just developed a specific technical specification that characterizes the intrinsic performance levels of this family of products pursuant to the NF EN 14509 product standard: Self-supporting double skin metal faced insulating panels. Factory made products. Specifications (cf. testomonial on page 2).

ABOUT ACERMI

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.

↗ Companies and ACERMI

ArcelorMittal polyurethane sandwich panels certified by ACERMI

Olivier Leblanc

INTERVIEW WITH OLIVIER LEBLANC, CERTIFICATION MANAGER AT ARCELORMITTAL CONSTRUCTION FRANCE, CONSTRUCTION BRANCH OF THE ARCELORMITTAL GROUP

ArcelorMittal Construction France, a subsidiary of ArcelorMittal, the largest steelmaker in the world, produces a wide range of wall-cladding and roof panels. In 2014, the company initiated the ACERMI Springboard (*Tremplin*) certification process for its sandwich panels with polyisocyanurate foam. On February 18, 2015, the first ACERMI Springboard certificate appeared on a sandwich panel. In 2017, the company is ready to move up to the new ACERMI technical specification developed for this type of product.

Which products are ACERMI certified?

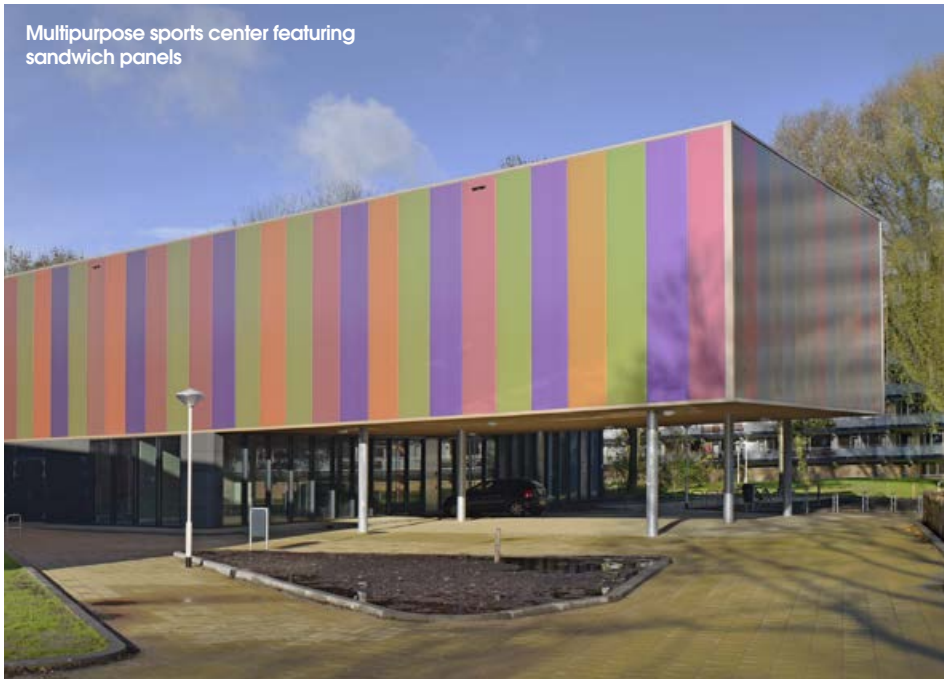
Sandwich panels used in wall cladding, roofs, ceilings and partition walls are divided into two main families: industrial panels for dedicated sites and office buildings and cold panels for food-processing and refrigerated buildings, in which the temperatures vary between +/-40 C°.

Why did you undertake the Springboard certification process?

Generally, an ACERMI insulation material is a product designed to be integrated into a building element, whereas at ArcelorMittal we have a finished product that makes up the entire building element through these sandwich panels. And so in 2014, we decided to begin certification through the Springboard Technical Specification. It's a procedure that was developed by ACERMI for new products such as ours, in order to obtain the ACERMI technical specification within three years. It's a real alternative that opens up the way for innovation.

What does ACERMI certification bring you?

ArcelorMittal has been making panels for about 40 years. Our polyurethane sandwich panels are now considered conventional. Up until now, they were validated by a Technical Appraisal (DTA), but under RAGE (the French Environmental Policy Standard Practice), these appraisals will be canceled on July 1, 2017. The solution, which makes it possible to demonstrate with certainty the thermal performance of our products, is thus to obtain ACERMI certification. In this way, we will comply with the RAGE technical specification and, regarding the performance levels of the panels, we will benefit from several certifications, including a thermal one: ACERMI. We are working on gaining recognition for ACERMI through the European EPAQ certification, but also on getting other performance aspects included by ACERMI, which are covered by other certifications, such as EVCP1 and EPAQ. Of course, the process takes a lot of time and money. It's a choice we make so that we can offer sandwich panels certified as having the lowest thermal conductivity on the market, setting us apart from the competition.



Multipurpose sports center featuring sandwich panels

What are the strengths of this certification?

It ensures that a certified product possesses the characteristics specified on its label. The entitlement to use the ACERMI certificate is reassessed periodically. Our customers know about this regular testing, and it builds their trust. From a commercial standpoint, it proves the quality of our products, as their thermal performance is never questioned, because this certification is recognized in France as being THE thermal standard. Finally, it makes our customers eligible for the environmental tax credit for construction work.

Where do you stand today?

We are working together with ACERMI and the *Syndicat Enveloppe Métallique du Bâtiment* (Metal Building Envelope Syndicate), pertaining to our business, in order to finalize a regulation specific to sandwich panels, which will be called RP 17, and which will allow us to transition to a conventional ACERMI certification including other characteristics in addition to thermal resistance. The name Springboard certainly fits this example!

↗ Architects and ACERMI

Recommending products certified by ACERMI means guaranteeing high-quality structures


Julien Gadrat

BY JULIEN GADRAT, FOUNDER OF GADRAT ARCHITECTURES & ASSOCIÉS IN BORDEAUX


School in Loupiac

Julien Gadrat works in all areas of construction. His vision of architecture is contextual, reconsidering how buildings are used and taking a new perspective on how they are designed, to create innovative, respectful and generous buildings.

Beware of CO_2 emissions!

We mainly work in public procurement, designing schools and recreation centers for children. We are especially attentive to air quality and, as a result, to the sanitary quality of the materials and the potentially harmful emissions of some materials.

A portion of our activity is positioned on negotiated contracts and the fees are low. Like many of my fellow architects and due to a lack of resources, we are not able to call upon specialized consulting firms to conduct accurate testing leading to health data sheets for materials. We do however check for emissions of volatile pollutants: VOC, SVOC and formaldehyde in materials, and we go beyond CE marking, particularly by relying on the ACERMI certification. It's an issue we care about.

Humans are fragile, and this fact is disregarded

In 2016, the French government published a decree making it mandatory to monitor the indoor air quality of premises used by children, beginning in 2018 for schools and daycare centers. In the long term, this requirement is planned for all types of buildings. But young children will be the first beneficiaries, and this is a good thing. Children are much more fragile than adults. Low-quality air, caused by poor quality materials, can cause irreparable damage to children's health.

These are environmental concerns that take account of both the planet and human beings. Humans are fragile, and this fact is disregarded, even though there are scientifically proven links between buildings and health!

We prefer ACERMI...

Many manufacturers make bold claims or obtain only the general certifications required, but few undertake a voluntary procedure to prove the quality of their products.

Let's not lose sight of the fact that the original goal of construction is to serve people, in terms of use, health and environmental impact.

There are a great many standards, which we meet, of course, including thermal regulations. In this respect, we specify the thermal resistance characteristics of the insulation products to be used in the envelope, roof, walls and flooring. We combine all of these factors to make choices early on, clearly described in the specifications, based on the ACERMI reference systems.

Timber framed buildings represent 70% of our activity. In this case as well, we opt for ACERMI insulation materials, such as rock or glass wool or cellulose wadding.

... because it ensures the final quality of our construction projects

We understand that obtaining an ACERMI certification represents an investment for manufacturers, but for us architects, it guarantees that we will end up with a sound, high-quality building. Suzanne Déoux, a physician and the author of books on health in buildings, also promotes the ACERMI certification at her conferences.

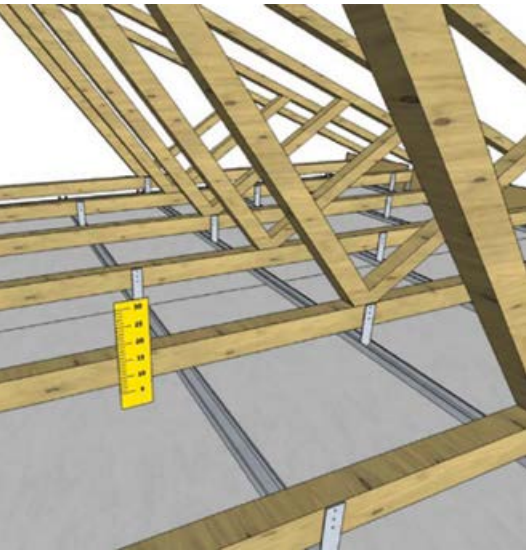
We strive to provide quality within budget constraints. We are committed to a code of conduct; it's a tough path, but it's all worth it once the building is open to its users and everyone feels good inside.

↗ Insulation & Uses

Insulation of unused attics with blown-in insulation materials

Causing 30% of all heat loss in homes, the attic represents the largest source of heat loss in uninsulated or under-insulated houses. For comfort in every season and to save energy, it is thus crucial to use high-performance thermal insulation products. Close-up of a technique: loose fill insulation installed with a blower .

The process consists of using a pneumatic machine to blow loose fill insulation material into unused attic. The most commonly used material is mineral insulation, such as rock or glass wool, and biosourced materials such as cellulose wadding, cotton, lambswool, linen, hemp, etc.



Plasterboard ceiling before loose fill insulation is blown in, and a ruler for measuring the thickness of the material installed.

Rules to follow

When insulation is blown over a plasterboard panel finishing with a timber or metal frame, compliance is required with the DTU (Unified Code of Practice) 25.41 regarding the maximum load of insulation materials depending on the type of insulation fixing, the spacing and the type of construction work being done, i.e. new build, complete renovation or insulation of an existing ceiling.

Extra care must be taken when there are heat sources, such as a chimney smoke duct , a recessed spotlight, unprotected electrical equipment, etc. Installers must refer to the CSTB guideline no. 3693_V2 of June 2015, DTU 24.1 P1 and the Technical Approvals of the relevant products.

Thermal resistance: how to achieve the targeted performance

Once applied, the thickness of loose filled insulation can settle (S) over time due to variations in temperature and humidity. Because the thermal resistance is proportional to this thickness, the efficiency of the insulation decreases. Thus, it is important to take this phenomenon into account when installing the insulation, in order to achieve the energy savings expected by the project owner.

The ACERMI certification determines the settling class (SH) and the thermal conductivity of the product, so that its useful thermal resistance after settling can be calculated. Thus, in order to attain a given thermal resistance, for each certified product, ACERMI certifications indicate the thickness to be installed and thus the amount of product needed, also called the "insulating capacity."

On-site, insulation installers can refer to the information contained in the ACERMI certificate. Knowing the weight of a bag and the surface area to be insulated, they can calculate the number of bags needed to reach the targeted performance.

Furthermore, this data (product reference, insulated surface area, installed thickness, surface density and number of bags used) must be indicated by the installer on a worksite data sheet, which comprises the key document of the agreement between the project owner and the insulation installer.

CLASS	REQUIREMENT
SH 01	No measurable settling (≤ 1 %)
SH 05	S ≤ 5 %
SH 10	S ≤ 10 %
SH 15	S ≤ 15 %
SH 20	S ≤ 20 %
SH 25	S ≤ 25 %
SH 30	S > 25 %

Settling classes certified by ACERMI

↗ DIARY DATES

APRIL 20-21, 2017	**CAPEB Construction Professional Days**	Strasbourg
APRIL 27, 2017	**"Insulation" technical meeting of the UMPI-FFB**	Mulhouse

↗ LATEST CERTIFICATES

http://www.acermi.com/isolants-certifies/derniers/

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