

**Vacuum Insulation Panel Association
Technical Working Group
Conference Call
Wednesday 25 March 2015, 10:30 to 12:00 CET**

Participants:

Roland Caps, va-Q-Tec
Christoph Sprengard, FIW
Yoash Carmi, Hanita Coatings
Matthias Geisler, Evonik Industries
Liat Suari, Hanita Coatings
Ramon Albalak, Hanita Coatings
Francesco Gattiglio, VIPA International Policy Officer

Apologies:

Justin Davies, Kingspan
Marko Meglič, Knauf Insulation
Estelle Perin, Rexor
Pascal Rousset, Rexor
Zhaofeng Chen, NUAA
Joe Zhou, Fujian Super Tech Advanced Material
Phalguni Mukhopadhyaya, University of Victoria
Raquel Ponte Costa, VIPA International Executive Director

Minutes

1. Welcome

1.1 Governance rules

Francesco Gattiglio opened the call and welcomed all the members. Francesco reminded members of the Antitrust Compliance Statement of VIPA International.

1.2 Approval of the agenda

Roland Caps suggested discussing the standard just adopted in China for VIPs in buildings sent by Professor Zhaofeng Chen. Francesco Gattiglio proposed to discuss this matter during agenda item number 2, after the other standardisation items. The agenda was adopted with this modification.

1.3 Approval minutes previous conference call 20 October 2014 and review of action items

Participants in the call approved the minutes of the previous conference call. Francesco Gattiglio reported all actions were completed back in 2014, shortly after the call.

2. Follow-up of CEN TC88/WG11 and IEA-EBC-Annex65 meetings

2.1 CEN TC88/WG11

Roland Caps explained good progress was made during the last meeting of the CEN TC88/WG11 in Munich end February. The IEA-EBC-Annex65 also met in Munich one day after. The results of the tests made by 6 companies on thermal conductivity of the panels were discussed. The VIPs were stored at 50°C and 70% humidity for six months. The thermal conductivity was measured at different periods as well as the gas pressure and the water vapor. The results were very positive and showed an increase of the thermal conductivity of the VIPs during the whole duration of the exercise – 6 months. There was also an increase of the gas pressure and the mass increase by water vapor permeation. The companies participating at the exercise found that 50°C temperature and 70% humidity was a good compromise.

Francesco Gattiglio asked Roland Caps if this test can be used for all core materials. Roland reported that this should be the case, but more data is needed from manufacturers of glass fiber VIPs. Roland mentioned that 4

representatives from Panasonic attended the IEA-EBC-Annex65 meetings and promised to send data. Roland highlighted that this thermal conductivity experiment is applicable to the buildings application, but it also works for other applications, including appliances.

With regards to next steps, Roland Caps reported that both the CEN TC88/WG11 and the IEA-EBC-Annex65 agreed that this was a good method to calculate the ageing process of the VIPs. It is both the moderate high temperature and humidity that accelerates the ageing conditions of the panel without destroying it. The next meeting of the CEN TC88/WG11 is on 22 June in Berlin. By then, a draft standard text should already be in place. The DIN VIP-group will have a meeting the following day, on 23 June also in Berlin. What remains to be seen is the correlation between the increase of temperature and water vapor and air permeation. This is also very relevant for VIPs.

Still related to standardisation, Francesco Gattiglio explained to the participants the proposal received by Professor Chen from NUAA about the standard for VIPs recently approved in China and the creation of a laboratory in NUAA. Regarding the standard, members agreed the following remarks should be made:

Point 6.12 on durability: the test method is done over a very short period of time (10 days, staying in total less than 5 days effectively on high temperature) which is not enough to get data on the thermal conductivity increase of the panels which are to be used in building applications (over 25 years lifetime). The testing period is too short to evaluate the performance of the panels.

Roland Caps added that the test should be done with constant conditions and not all the time alternating conditions (temperature and humidity). Liat Suari objected that alternating conditions have shown to produce some higher conductivity increase. A compromise could be to have a period of alternating climate before the actual test of long-term storage with constant climate (similar to current German tests conditions).

Another aspect not covered by the Chinese standard is the heat bridge and the resulting higher effective thermal conductivity caused by barrier films based on aluminum foils. Members agreed that NUAA should be encouraged to base itself on the work already done by the CEN TC88/WG11 and use the same test conditions.

With regards to the suggestion of creating a laboratory or centre about VIP-Insulation & Energy Efficiency Materials in NUAA, members agreed that this is a good idea. Professor Chen asked if VIPA International can lead this initiative and build the lab together with NUAA and CIEEMA (China Insulation & Energy Efficiency Materials Association). The main purpose would be to undertake research on VIPs; train staff from company and governments; apply for projects funded by the Chinese government or by international organisations.

Members mentioned that an independent external laboratory in China (not associated with any company) would definitely be positive. The laboratory should focus on research on all aspects related to VIPs and not just on the thermal conductivity. With regards to the role of VIPA in this process, the association could facilitate access to information and best practices from other laboratories in Europe. FIW and EMPA are good examples that could be followed by NUAA and CIEEMA.

Christoph Sprengard mentioned that FIW has bought new equipment which will allow the institute to do other type of research work related to VIPs. He highlighted that buying new equipment is a big investment and that FIW needs to receive funding from projects to be able to enlarge its research activities related to VIPs.

One participant suggested that for instance during IVIS, VIPA could organize a meeting between NUAA and other test laboratories in Europe so they can discuss how to go ahead with the idea of having a laboratory at NUAA. This could be the involvement of VIPA – to facilitate any contacts with existing laboratories and provide advice when and if needed.

Action:

VIPA secretariat to report back to the Board the recommendations of the Technical WG about the proposals of Professor Zhaofeng Chen.

2.2 IEA-EBC-Annex65

As reported by Roland Caps on agenda item 2.1, the IEA-EBC-Annex65 had a meeting in Munich in February. The participants acknowledged the results of the tests made. Panasonic attended the meeting and showed interest in these activities as well as in joining VIPA. See agenda item 2.1 above for more details about the last meeting of IEA-EBC-Annex65. The next meeting will take place one day after IVIS in China.

2.3 Possible formal involvement of VIPA in CEN activities

Francesco Gattiglio explained that so far Roland Caps takes part in the CEN TC88/WG11 meetings and reports back to VIPA the discussions and decisions taken. Different members of VIPA take part in the same meetings: Roland Caps, Christoph Sprengard and Phalguni Mukhopadhyaya. But in fact VIPA as an association can request to CEN to be formally involved in the meetings of the TC88/WG11. Three options exist: liaison organisation, partner organisation or associate body (all details are available at [ftp://ftp.cencenelec.eu/EN/EuropeanStandardization/Guides/25_CENCLCGuide25.pdf](http://ftp.cencenelec.eu/EN/EuropeanStandardization/Guides/25_CENCLCGuide25.pdf)):

Liaison organisation

- Costs: EUR 500 per technical committee
- Process:
 - Upon advice of the concerned technical body
 - Following assessment of the compliance of the conditions to become liaison organization (pages 10-11 of the document, VIPA seems to comply)
- Benefits:
 - Possibility to participate in tech bodies with no voting right but with the possibility to submit documents, preparatory works, tech contributions, formulate advices.
 - Receive access to the working documents of the tech body(ies) of interest.
- Active participation and contribution are compulsory. The tech board can withdraw the participation of the liaison organization if it is not contributing.

Partner organization

- Cost: (EUR 5000 + 500 per technical committee), it allows also to take part to CEN governing bodies;

Associated Body

- Cost: (free), case-by-case agreement. The participation conditions are similar to those valid for liaison organisations but access to meetings is upon invitation.

Francesco Gattiglio asked members about their opinion on this. He highlighted that the liaison organisation option looks like the best option for VIPA. Having an official liaison status brings good visibility to the association. VIPA would be then recognised as the spokesperson for the industry. On the other hand, if VIPA decides to apply for liaison status, it has to ensure active participation at the meetings to avoid having the liaison status withdrawn.

Members discussed that it could be positive and saw no objection in assigning someone to represent VIPA at the meetings. Roland Caps is already a member of the CEN TC88/WG11 so we would need to check if he can attend the meetings also representing VIPA or if another person would need to attend the meetings.

Members agreed to submit a recommendation to the Board of VIPA to proceed with a request to CEN for a liaison status for VIPA International.

Decision:

Participants in the meeting agreed that VIPA International should apply to be recognized as a liaison organisation within the CEN TC88/WG11.

Action:

VIPA secretariat to double-check the conditions of the liaison status (e.g. if Roland can represent VIPA) and to present the concept to the Board for approval.

3. PEFCR (Product Environmental Footprint Category Rules) on thermal insulation

Francesco Gattiglio reminded members about the PEFCR (Product Environmental Footprint Category Rules) on thermal insulation which was circulated to the members a couple of weeks ago. As explained in the email sent, the European Commission is funding consortium projects to look at the calculation methods of product environmental footprint. One consortium was formed about thermal insulation during the summer of 2014. The

consortium is made of different trade associations (EURIMA, Plastics Europe, Exiba, etc), universities and institutes. The consortium already delivered one document (scope and product definition) which was sent to the members with the meeting attachments. Francesco Gattiglio asked members if it would be relevant for VIPA to take part in this process. Two options are available:

- To try to be accepted in the consortium as a member. The consortium was set-up in June 2014 and has already finalised stage 1 of the project, but the consortium still has other stages to work on. The expected conclusion of the project is only in 2017.
- To follow the work of the consortium as a stakeholder. VIPA International could ask to receive information about the work of the consortium, participate in external consultations that the consortium might organize and provide comments. This would not allow to participate to the meetings of the consortium and would imply a minor involvement;

Participants mentioned the project seems to be relevant and it could be important to take part, but they requested more time to read the documents before making any recommendation to the Board on it.

Actions:

- Members of the Technical WG to go through the PEFCR documents and see if it is relevant for VIPA to take part in the consortium.
- VIPA secretariat to ask the consortium leader if it is still possible to become a member of the consortium.

4. VIPA planned activities for 2015

Francesco Gattiglio reported the following activities are included in the roadmap of 2015 priorities for VIPA International:

1. Commission a technical study on ageing process - accurate measurement of the continuous increase of thermal conductivity of the VIPs (within some days) to get information on the extrapolated value beyond 20 years
2. Continue participating at the standardisation process (CEN TC 88/WG 11)
3. Look into quality matters (performance of the panels, failure rate and quality of installation).
4. Consider the possibility of creating a quality certification scheme
5. Look into sustainability and recycling issues
6. Align efforts with the IEA Task 65

Regarding objective 1, Francesco reported that the German standardisation body – DIN – could receive funds to undertake this study. In such situation, VIPA International would abandon this study topic and commission the other topics selected by this WG in 2014. Christoph Sprengard reported that there are still no news from the DIN on this regard, as a decision on funds is expected in April. He will keep VIPA informed about any developments on this.

The second bullet point is ongoing and was covered during the agenda of the conference call.

Item n.3 and n.4 relate to quality matters. Francesco reported that the Board member Gregor Erbenich from Porextherm is looking at the possibility of VIPA to eventually take over the ownership of the GSH quality label (<http://www.vip-ral-quetezeichen.de/en.html>). Gregor is looking at the process and the formalities needed for this to happen and will report back to the board on that during the next meeting on 7 May in Brussels.

On item n.5, Francesco Gattiglio asked the participants for ideas of how VIPA could work on these subjects. Members reported that the IEA-EBC-Annex65 included recyclability and sustainability in its plan of activities (work package 3 or 4), but at the moment there is no timeline foreseen for that. As a result, participants in the call were of the opinion that VIPA International should not get involved on the same topics as IEA-EBC-Annex65. VIPA International should follow the activities of IEA-EBC-Annex65 on this. One participant mentioned that an Institute in Bilbao has data on recycling and sustainability.

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Decision:

VIPA International to rely on IEA-EBC-Annex65 for all matters concerning recycling and sustainability.

Finally with regards to objective n.6, VIPA members continue to take part in IEA-EBC-Annex65 meetings to avoid that both groups work on the same subjects.

5. AoB & date of next conference call

The item suggested by Roland Caps under AoB, the Chinese standard, was discussed under item 2.1 (see page 2).

Members agreed to have another conference call during the summer, before IVIS 2015.

No other item was discussed. The conference call finished at 11:45.
