

**Vacuum Insulation Panel Association
Technical Working Group Conference Call
Monday 1 February 2016, 15:30 to 16:30 CET**

Participants:

Roland Caps, va-Q-Tec
Justin Davies, Kingspan
Christoph Sprengard, FIW
Yoash Carmi, Hanita Coatings
Marko Meglič, Knauf Insulation
Hans-Frieder Eberhardt, Porextherm
Raquel Ponte Costa, VIPA International

Apologies:

Matthias Geisler, Evonik Industries
Pascal Rousset, Rexor
Liat Suari, Hanita Coatings
Estelle Perrin, Rexor
Phalguni Mukhopadhyaya, University of Victoria
Yi He, Qingdao Kerui New Environmental Materials
Quiang Liu, Fujian Supertech
Miki Mi, Jiangsu Sanyou Dior Energy-Saving New Materials

Agenda

1. Welcome

1.1 Governance rules

Raquel Ponte Costa opened the meeting and welcomed all the members. Raquel reminded members of the Antitrust Compliance Statement of VIPA International.

1.2 Approval of the agenda

The agenda was approved with no additions.

1.3 Approval minutes previous meeting of 18 and 19 September 2015 and review of action items

The minutes were approved as a correct statement of the discussions and decisions taken during both meetings.

2. Governance

2.1 Terms of Reference of the Working Group

Raquel went through the Terms of Reference document together with the members. No questions were raised and the document was approved.

2.2 Election of the chair of the Technical WG

Raquel Ponte Costa asked for volunteers to take over the role of chair of the Working Group. The responsibilities of the chair are to lead the conference calls and guide the work of the Working Group. Raquel explained the chair will be the main contact person to the VIPA secretariat for all technical matters. Following a discussion about possible candidates, no decision was taken. Members suggested putting this as an action item for the next conference call.

Action:

Technical WG members to notify the VIPA secretariat in case they want to volunteer to be the chair of the WG for the next year.

3. VIPA International 2016 budget and activities (50,000 EUR for technical studies)

Raquel Ponte Costa explained the 2016 VIPA budget includes 50,000 EUR to be used by the Technical Working Group. 7500 EUR will be used to pay the last installment of the FIW study on compressive strength measurement. The remaining 42,500 EUR are to be decided by the WG.

Members looked at the list of topics put together back in 2014:

- Accurate testing and calculation methods of edge effect
- Accurate testing and calculation methods of effective thermal conductivity of VIP
- Finding the best (most relevant) acceleration conditions (with special emphasis for refrigerators) in thermal conductivity tests
- Measurement of VIPs internal pressure using liftoff technique
- Characterisation of getter used in VIP

Discussion proceeded on which topics are more urgent and would fasten the standardisation process. FIW mentioned they will work on a proposal for a study on the calibration of the liftoff technique to measure the internal pressure of the panels. Yoash offered to help FIW in the process. Yoash and Christoph suggested discussing this at the Annex 65 meeting in Turin on 26 February to gather more feedback from other manufacturers.

Action:

Christoph Sprengard and Yoash Carmi to work together on a proposal for the measurement of VIPs internal pressure using the liftoff technique and to ask feedback during the next Annex 65 meeting.

4. GSH Quality Label

Raquel reported the Board decided in December 2015 to negotiate with the GSH a co-operation agreement for the usage of the RAL VIP quality label. Raquel had a meeting with Klaus Zipp, the General Manager of the GSH and Georgios Eleftheriadis, the current President of the GSH Board late January in Essen. The meeting was very positive and the GSH made an offer of a flat rate to be paid by VIPA, instead of having each company paying 2900 EUR to the GSH. With regards to the criteria of the label (RAL Quality Rules RAL-GZ 960), the soon to be established VIPA Quality WG will be responsible for this document and can adapt it if necessary (extend to other applications, core materials, etc).

The GSH is now translating all information to English, especially the RAL-GZ 960. VIPA will circulate the documents to all members and a decision will be taken at the next Board meeting.

Members inquired if this quality label will become a condition of membership, meaning if all manufacturers will be forced to comply with the quality label requirements. Raquel mentioned that this was the initial plan but no decision has been taken yet on this regard. The Bylaws would need to be changed and approved by the General Assembly. Members welcomed the update and are looking forward to receive all documentation in English.

5. Status study on compressive strength measurement

Christoph Sprengard reported that the study is a bit delayed because of the late reception of the samples. Currently, FIW received specimens from 2 companies and there is a third one under way. One company mentioned that it could not send specimens of the requested size. The other companies have not yet replied to the request of FIW. Raquel volunteered to push the companies that have not yet sent material but Christoph explained that the material received is already sufficient to start working and it doesn't impact the confidentiality clause of the contract.

Christoph mentioned this situation might have some consequences on the delivery date of the final report, but apart from timing issues, the project is progressing well.

6. Proposals for consideration:

6.1 VIPA to finance study: develop an advanced technique for measuring the effect of moisture content on the thermal conductivity of VIPs, by Hanita (25,000 EUR, 1 year)

Members welcomed the proposal of Hanita and were unanimous on the value of the project for VIPA and for the standardisation process. In fact at the last CEN standardisation meeting, CEN mentioned that according to the new rules and procedure of the CEN, the standard will need to be finalised by April 2017.

Decision:

The VIPA Technical WG approved Hanita's proposal for a study on advanced technique for measuring the effect of moisture content on the thermal conductivity of VIPs.

Raquel explained that she will forward the Hanita proposal to the Board for final endorsement. Following this, Hanita can start the study.

6.2 VIPA to sponsor PHD thesis

Raquel reported this idea came out during the last Board meeting. Roland Caps has contacted Harjit Singh from the Brunel University of London who was open to such co-operation. Harjit mentioned they have facilities for characterisation of core and envelope materials, manufacturing a small (300mmx300mm) VIP, environment chambers and computational facilities like COMSOL-multiphysics, Ansys-CFX/workbench and access to cluster computing for large computer models.

Members discussed which topics could be given to the student. One suggestion was that a study on a model to test the water vapor permeation of metalized films would be a good option. Another suggestion was to develop a technique for measuring the capacity and performance of getters. The second option was agreed to be the preferred one. This study on the getters should not take more than six months and it is appropriate for a student to work on perhaps as a master thesis instead of a PHD. Christoph suggested looking for a student and see if there is interest in working on such a project.

Action:

Christoph Sprengard to see if there is any student interested in working on a measuring technique for evaluating getters

7. AoB & date of next conference call

The date of the next conference call or meeting will be decided via email. Members discussed that a face-to-face meeting could be organised in parallel to a big event or conference but could not identify something in March-April.

The phone call finished at 17:00.
