



Executive Summary of Minutes

22nd Solar Keymark Network Meeting – 2017-03-07&08 Freiburg

Starting in 2018, there will only be only one physical meeting a year, accompanied with one or two web meeting(s) in the second half of year. The next Solar Keymark Network (SKN) meeting will take place in October in Garnaca, Cyprus, and it will be a physical meeting that will serve as a practical and final trial for web meetings. There was a Resolution in the SKN Internal Rules to include liaison officers as Observers and Guests. A Participation Rules Work Group (WG) was created to elaborate a Resolution in order to adapt to the new structure of SKN Web meetings and to modify the voting preconditions.

The Steering Group (SG) of the Solar Certification Fund (SCF) presented the recommendations for funding of Projects and these were approved by the SKN. Many of this year's projects are dedicated exclusively to the improvement of many aspects of the Solar Keymark: Promotion, Strategy, Adding value to the certificates and database, controlling the changes on the database, improving the 10%Rule for retests, studying new scopes for certification and developing a Scheme for absorber coatings. Other projects included the usual help to liaison officers in many TCs that affect the solar thermal industry. There is also a project for a new tool for Dynamic System Testing according to ISO 9459-5. With this new call, the SCF will surpass the threshold of 100 projects supported in its 8 calls so far, while the total funding allocated is now close to 1.2 million Euros.

A Resolution was approved concerning a new version of the SCF working rules, providing more clarity and fair play to the process, namely in what regards the impartiality of the SCF Steering Group members. It also included a provision allowing for volunteer evaluators to take part in the evaluation process.

The PVT¹ WG presented a Decision to use a new Declaration document and it was approved. Resolutions were approved regarding two new Annexes to the Scheme Rules for exchanging Insulation Materials and for families of coloured glass collectors

Resolutions were taken (Annex G and H of Scheme Rules) to improve the harmonization on OEM&OBL Certificates. An explanatory document will be published in the Keymark Website regarding performance parameters according to EN 12975-2 and EN ISO 9806 with the aim to avoid confusion in tenders and subsidy schemes.

Proposals for Decisions and Resolutions were presented by the German Speaking Laboratories Experience Circle and approved by SKN. These refer to comments on the collector data sheets and completion of data sheets of systems by adding model parameters for thermal performance prediction. A WG was set up to elaborate a new version of data sheets.

A Decision was taken for a short procedure to prepare Resolutions by SP² on the data sheet for collectors.

A Complaint Committee is set up according to the Scheme Rules after complainant has raised complaint to Head of CB. Information on the outcome will be presented at next SKN meeting. The 10% Rule WG will continue its work on section 6.1 of Scheme Rules.

Many updates were given about ongoing Projects and by liaison officers. The most relevant to the Solar Keymark is a new revision of EN ISO 9806 expected in 2017.

¹ PVT : Photo Voltaic – Thermal

² SP: SP Technical Research Institute of Sweden

Minutes

22 Solar Keymark Network Meeting

2017-03-07+08 Freiburg

Item 1: Opening of the meeting

Jaime Fernández, Chairman of the Solar Keymark Network (SKN), opened the meeting and welcomed the members, observers and guests. He thanked Jan Erik Nielsen, Manager of SKN for the excellent preparation of the meeting. He also thanked Korbinian Kramer of the Fraunhofer ISE for the hosting of the meeting, who gave a warm welcome and informed of some practical information. Later on in the meeting, one of the Directors of the Institute, Prof. Dr. Hans-Martin Henning personally welcomed the SKN.

Some practical information regarding the decision-making process and output of the agreements (Decisions and Resolutions) at SKN meetings was given to the participants.

All decisions and resolutions are written at the meeting and voted by the members with voting rights. In order to facilitate the process, the negatives votes and abstentions are asked for first. In the minutes that follow, in all cases in which there are 0 negative votes and 0 abstentions, the wording 'Unanimous decision' has been used as information on the voting.

Item 2: Introduction of participants

All of the participants presented themselves, indicating their names, company, country of origin and member status. A careful count of members took place in order to check if the voting preconditions were met. Taking into account the members that were joining via web, 4 Industry representatives (>3) and 21 Obligatory Members(>19) were counted. Therefore the requirements defined in section 4.2 of N102R9 Solar Keymark Network Internal Regulations were met and the meeting could continue under normal circumstances.

Jaime Fernández expressed the sorrow for the loss of Alfred Brunger of Exova, and the SKN would like to thank his contribution to the SKN.

The participants are listed in Annex A.

Item 3: Approval of the agenda

There was a small change in the Agenda. Pedro Dias asked to give an important and recent update on the Package Label, and it was added as Item 32a. Soeren Scholz asked to treat Item 29 at the end of the first day because he could not attend the meeting on the second day. (This was done but the original numbers are kept on the numbers to facilitate traceability with the Agenda to readers)

Item 4: Comments to the minutes of the SKN meeting 21 and 21Aweb

The minutes of the last meetings (physical and web) were prepared by Jaime Fernández who received help with proof reading from Jan Erik Nielsen. Comments were sent by Andreas Bohren and Jean-Marc Suter and these were taken into account in a new revision. Since there



were no more comments, the minutes were approved and the word 'Final' was added to the documents SKN_N0312R1SKN-21.MeetingMinutes_Final.pdf and SKN_N0315R1_Minutes21A_SKNWebmeeting_Final.

Item 5: Result of voting by correspondence on issues from meeting 21A (web)

Since the voting preconditions were not reached at the last SKN 21A web meeting held on the 2016-12-20, Jan Erik Nielsen, manager of SKN prepared the voting that was done on line. The result of the voting, which took place between the 5th and 20th of January, 2017 is presented below:

ISSUE	YES	NO	ABSTAIN
Proposal for Resolution M21A.R1: Withdraw Annex J	6	18	9
Proposal for Decision M21A.D1: Reactivate WG for PVT to improve Annex J	31	0	2
Proposal for Resolution M21A.R2: To add a new paragraph in Section 13.7 of specific scheme rules to deal with discontinuous performance curve behaviour within ScenoCalc	27	3	3
Proposal for Decision M21A.D2: Use of new version 3.0 for calculation for data sheets for air collectors.	25	0	8

Therefore, the text of the Decisions and Resolutions are the following:

Decision M21A.D1: Reactivate WG for PVT to improve Annex J

Reactivate PVT WG and propose a resolution with changes in Annex J of Solar Keymark Scheme Rules for the next SN meeting in March

Information on Vote: 31 positive votes, 0 negative votes, 2 abstentions,

Resolution M21A.R2: To add a new paragraph in Section 13.7 of specific scheme rules to deal with discontinuous performance curve behaviour within ScenoCalc:

Section 13.7 Calculation of "Collector Annual Output" (CAO)" of the Solar Keymark Scheme Rules will be complemented by the following text:

"For solar thermal collectors operating not continuously differentiable performance curve with an efficiency depending on the absolute temperature (e.g. integrated high temperature cut off), ScenoCalc may be calculated with two split curves. A clear switching point between the different curves shall be given in the test report and on the data sheet. The parameters describing the thermal performance below the switching point are η_0 , a_1 , a_2 , as usual, the parameters describing the thermal performance above the switching point shall be named with different letters, for example above s_0 , s_1 , s_2 (or η_0^* , a_1^* , a_2^*). The mathematical model for the description of the thermal performance shall be given in the test reports and in the remarks field of the data sheet. It has to be taken into account that the switching point is usually depending on the absolute temperature and not on the relative temperature difference"



Information on Vote: 27 positive votes, 3 negative votes, 3 abstentions

Decision M21A.D2: Use of new version 3.0 for calculation for data sheets for air collectors.

From January 2017 only the new version Air Cow program 3.0 shall be used to feed Solar Keymark data sheets.

Information on Vote: 25 positive votes, 0 negative votes, 8 abstentions

Item 6: Review of Decision list and follow up of action list

Jan Erik Nielsen and Jaime Fernández presented the documents SKN_N0100R19_DecisionList and SKN_N0286.R7_ActionListFor22SKNmeeting. Revising the documents it was concluded that all of the working groups had been active and the updates of their work would be revised during this meeting.

Item 7: Structure/organization of SKN meetings

The last physical SKN meeting (21) was not finished in time and had needed an extraordinary web meeting that took place in December (21A). Managing the meetings is responsibility of the Chair. Although personal apologies had been sent to the members whose Items need the extra meeting, Jaime Fernández presented the document SKN_N0323R1_NonConformityChair. This was a way of treating this incident like an internal non conformity, analyzing the cause of the problem and searching for corrective actions.

After the last Web meeting, Jan Erik Nielsen, Pedro Dias and Jaime Fernández had analyzed if it had been successful. Although there were no major problems, it seemed for the moment difficult to have long Web meetings and the voting process needs to be improved. Jaime Fernández presented 3 different possibilities for organizing web meetings together with physical meetings (SKN_N0324R0_SKN_meeting_structure_proposals).

After some discussion and since there was not an urgency to choose one, the following Decision was taken:

Decision M22.D1- Change of structure for SKN Meetings

Starting in 2018, the structure of SKN meetings changes into one physical meeting to be held in spring time and one WEB meeting to be held in autumn. There will be a proposal for the structure of the meetings to be presented in the autumn meeting of 2017. During the physical meeting to be held in autumn 2017, a web tool for online meetings (and voting) will be used as a final practice.

Information on Vote: Unanimous decision

Item 8: Date and place of next meeting(s)

The following schedule for meetings was then confirmed and agreed upon:



- 23rd SKN meeting: October 17th, 13:00 hrs to October 18th, 14:00 hrs, 2017, Larnaca, TUV Cyprus
- 24nd SKN meeting: March 6th 13:00 to March 7th 14:00, 2018 - Madrid, AENOR,
- 25th SKN meeting: October 2018. Web meeting

Item 9: Proposal for resolution: Include Liaison officers in list in 2.2 of SKN internal rules,

Jan Erik presented a proposal in order to facilitate the attendance of Liaison officers that continuously need and invitation as a guest to the SKN meetings. The following Resolution was taken:

Resolution M22.R1 - Include Liaison officers in list in clause 2.2 of SKN internal rules

To modify SKN_N0102R12 Internal regulations by adding the following phase in section 2.2 Observers and guests: "Liaison officers to CEN and ISO TC's"

Information on Vote: Unanimous decision

Item 10: Resolution regarding voting rules and web meetings of internal working rules

After the last Web meeting that had not complied with the voting preconditions, Jaime Fernández started a quick working group to improve the procedure. The results are presented in the document N0322R0_Voting_Preconditions which was commented during the meeting. The WG came up with many new ideas but did not find a consensus for a quick solution to be presented at this meeting. Therefore, the following Decision was taken:

Decision M22.D2 – To create a Participation Rules WG to elaborate a Resolution in order to adapt to the new structure of SKN Web meetings and to modify the voting preconditions

This WG is created to propose a Resolution to amend SKN_N0102R12 Internal regulations in order to adapt the document to the new structure of SKN meetings (see M22.D1) and to take into consideration the ideas presented for voting preconditions (see Item 10 of 22nd SKN meeting). Members of the WG are: Andreas Bohren, Pedro Dias, Harald Porcsharnig, Katharina Meyer(Chair) , Harald Drueck.

Information on Vote: Unanimous decision

Item 11: Proposal for elaborating lists of resolutions

Jan Erik presented a proposal in base of the request of some SKN members to improve the information related to Resolutions. After some debate regarding the best way to address the issue, the following Decision was taken:



Decision M22.D3- New Sections with lists of Resolutions and procedure for updates by SKN Manager

Each new revision of a document will have a new section showing the Resolutions taken from the last version. This will affect the following documents:

- Specific scheme rules
- SKN working rules
- SCF working rules

Once any Document is officially changed into a new version and updated at the SKN website, the SKN Manager will communicate this to the SKN.

Information on Vote: Unanimous decision

Item 12: Proposal for decision / SCF steering group for SCF project applications (8th call)

Harald Drucek, Chairman of the Solar Certification Fund Steering Group presented the document N0317R1-SCF8-Recommendations and made a quick summary of the Projects presented and the corresponding proposals. The following Decision was taken:

Decision M22.D4- Funding of proposals from the 8th SCF call

The proposals recommend by the Solar Certification Fund Steering Group for funding as described in document SKN_N0317R1-SCF8-Recommendations are accepted and the corresponding activities will be funded.

Information on Vote, Unanimous decision

Following the presentation, Ashraf Kraidy of the Regional Center for Renewable Energy and Energy Efficiency of Egypt (RCREEE) gave a quick update of the SHAMCI Project. A project presented by RCREEE under the category of Promotion had not received the SCF Fund. However, the following Decision was presented and taken:

Decision M22.D5- SHAMCI-SKN WG to study possibilities of priority issue for 9th SCF call

The Solar Keymark Network highly appreciates the activities performed by SHAMCI in order to strengthen the quality and reliability of solar thermal products in the Arab region. Furthermore the Solar Keymark Network would be in favor of a harmonization of the testing, inspection and certification procedures of SHAMCI and Solar Keymark under the umbrella provided by the Global Solar Certification Network (GSCN). A working group composed of members of SHAMCI and SKN will study the impact of a colaboration between both parties and present its conclusions in the SKN meeting of October 2017. If these conclusions are positive, it may be possible to enter a project related to the elaboration of the co-operation between SKN and SCHAMCI as a priority issue in the 9th SCF call, as well as it will be eligible for similar projects to



submit future proposals according to specific criteria proposed by the SCF Steering Group and the SKN.

Information on Vote: Unanimous decision

Once the will for cooperation was clear, and applying a more practical approach, the following Decision was taken:

Decision M22-D6- Creation of a SHAMCI WG

A WG is created to study the collaboration of SKN with SHAMCI. The conclusions of the WG will be presented at the SKN Meeting in autumn 2017. The members are: Ashraf Kraidy (chair), Harald Drucek, Korbinian Kramer, Katharina Meyer, Pedro Dias, Jean Batiste, Emmanuelle Legers, Jan Erik Nielsen, Jaime Fernandez.

Information on Vote: Unanimous decision

Item 13: Report and Decision/Resolutions proposals by SCF Rules WG to improve the SCF Working rules

Harald Drucek, Chair of the WG for improving the SCF Working Rules, (see M21.D16) presented the document SCF_N0001R14_WorkingRules. After a presentation of many changes in the document that showed an overall improvement in the transparency and fairness of the entire process, the following Resolution was taken:

Resolution M22.R2- New revision of SCF_N0001R15_WorkingRules

A new version of the SCF WorkingRules as the document SCF_N0001R15_WorkingRules is approved.

Once the new Industry member is appointed and added, the document will be published as SCF_N0001R16_WorkingRules.

Information on Vote: Unanimous decision

Note from Chair: After the meeting, Pedro Dias confirmed that the new Industry member would be Costas Travasaros

Item 14: Appoint supplementary SCF evaluators

Jan Erik Nielsen informed that some supplementary SCF evaluators would be most welcome. Gerard van Amerongen volunteered. Since more volunteers would be needed, this Item will appear in the next meeting also.

Item 15: Report and Decision/Resolution from new 10% Rule WG to revise the 10% Rule of section 6.3 of Solar Keymark Scheme Rules and to study financial possibilities for dealing with complaints



Harald Drucek, chair of the 10% WG, informed that the work done so far was the presentation of a project proposal for the 8th SCF call. Since the project had now been approved, the WG could start its work in compliance with M21.D1 (which has as a main purpose the revision of section 6.3 of the Solar Keymark Scheme Rules)

Item 16: Report and Decision/Resolution proposals from Air Collectors WG

Korbinian Kramer, Chair of the Air collectors WG informed that work based on M21.D5 was ongoing but did not have any conclusions to present.

Item 17: Report and Decision/Resolution proposals from PVT WG

Ullrich Fritzsche, chair of the PVT WG, informed of the work done after the online voting took place in January and M21A.D1 was taken for reactivation of this WG. Two web meetings had taken place, one of them had the purpose of pinpointing practical problems that had been encountered, and the second meeting tried to find solutions to these problems. It was also agreed that work would continue in the following months and that some practical cases would be described as show cases. The document SKN_N0325R0_PVT_Declaration was presented as a first step to improve the process. The following Decision was taken:

Decision M22.D7- Voluntary use of new Manufacturers Declaration form for PVT Collectors and in substitution of points a) and b) of section 6.1 of Annex J of Solar Keymark Scheme Rules

It is decided to approve document SKN_N0325_PVT_Declaration as a declaration signed by the manufacturer of PVT collectors. The use of this document is voluntary for the time being. It is possible for Certification Bodies to accept this document, properly filled out, in substitution of applying points a) and b) of section 6.1 General Requirements of Annex J of the Solar Keymark Scheme Rules (SKN_N0106AnnexJ_R2). In practice, this condition implies withdrawing the requirement of ISO 5 System Certification on PVT collectors or PV modules but leaving the requirement for complete testing on the PVT collector (which may be achieved also by complete testing on PV module + partial testing on PVT collector) according to IEC standards by accredited laboratories. The PVT WG will continue its work to improve Annex J and present a Resolution for the next SKN meeting of October 2017.

Information on Vote: 2 negative votes, 2 abstentions. (The CB representative Soeren Scholz asked to apply section 4.3 of internal rules. CBS then voted with 4 positive votes and 2 negative votes, therefore the voting was positive)

Item 18: Report and Decision/Resolution proposal for exchange of insulation material in collectors “Equivalent insulation”

Andreas Bohren made a presentation (See Annex B) regarding the result of the work done together with Maria Joao Carvalho on the exchange of insulation in solar thermal collectors (SCF Project 7C08). According to M21.D10 comments would be sent in between meetings. Jaime Fernández had sent some comments and these were considered in the final document that was proposed for Resolution. After a short debate, the following Resolution was taken:



Resolution M22.R3 – Approval of new Annex K of Solar Keymark Scheme Rules for exchange of insulation materials in certified collectors

The text of the document SKN_N0320R1_Insulation exchange - Rev - Final is adopted as Annex K of the SK Scheme Rules. Insulation materials in certified solar thermal collectors can be exchanged without retesting under the conditions defined in clause 9 of Annex K. A database (.xls sheet) of insulation materials is established as described in Clause 10 of Annex K.

Information on Vote: 1 Abstention, 0 negative votes

Item 19: Report and Decision/Resolution proposal for coloured glass families on Glass WG

Andreas Bohren presented the work done for creating families of collectors with different colored glass (see presentation in Annex C). After a short discussion, the following Resolution was taken:

Resolution M22.R4 – Approval of new Annex L of Solar Keymark Scheme Rules for families of coloured glass

The text of the document SKN_N0321R0_Coloured_Glass_Families - which gives the conditions and procedures for "Coloured Glass Family" - is adopted as Annex L of the SK Scheme Rules. The same type of glass in different colours can under certain conditions be treated as a "Coloured Glass Family".

Information on Vote: Unanimous decision

Item 20: Report and Resolution on data sheets

Jaime Fernández explained that this Item was related to Item 12 (proposal for SCF applications), and in particular to the Project 10-1-SCF8-Other-Scenocalc. This project was not proposed for funding, but instead of this there was a proposal "to put aside a reserve of 5.000 € for updating of ScenoCalc. Funding from this reserve is then to be released on request by SKN to be spent on specific well defined activities". At the last SKN 21A web meeting there had also been a proposal to create an area for discussion in the web site for sharing needs for updates of Scenocalc.

After a long debate, the best way to proceed was agreed upon through the following Decision:

Decision M22.D8 – Procedure for funding changes in ScenoCalc

The SKN will put aside a reserve of 5.000 € in every annual budget for updating of ScenoCalc.

Funding from this reserve is then to be released on request by SKN to be spent on specific well defined activities related to Scenocalc. There will be a specific discussion area at the SKN Website where any SKN members may propose changes or improvements related to Scenocalc.



SP will take these recommendations for the preparation of a proposal for a Resolution related to changes made in Scenocalc together with a proposal for a decision related to the required budget.

SP will send the proposals to the SKN as basis for a resolution and a decision to start the work.

Information on Vote: Unanimous decision

Item 21: New Equivalent absorber coatings?

There were no new equivalent absorber coatings to report on.

Item 22: New Equivalent glazing?

There were no new equivalent absorber coatings to report on.

Item 23: Report by CB WG on Proposal from AB to do every second inspection visit via web.

Katharina Meyer and Jaime Fernández reported on the discussion held within the CB WG referring to the proposal of Andreas Bohren to do every second inspection visit via web. (see M21.D12). None of the CBs have any experience with doing inspection visits via web in Product Certification and it is not in the scope of any accreditation according to EN ISO 17065.

Andreas Bohren and Ulrich Fritzsche informed that they had recently received confirmation from Din Certco to start a pilot project. Therefore it may be possible to share some conclusions of their work at the next October SKN meeting.

Item 24: Transition from EN 12975 to EN ISO 9806 in cases of OBL/OEM Certificates when subsidy grants or tenders make reference to EN 12975 or aperture area

Jaime Fernández reported on the difficulty that is sometimes being encountered due to subsidy schemes and tenders making references to EN 1275 instead of EN ISO 9806. Other members commented on the continuous need to explain the differences between the information on the certificates of collectors based on these two standards to their different stakeholders. Both Stephan Fischer and Jaime Fernández agreed to send examples of letters that had been prepared for customers to Jan Erik Nielsen, with the idea of preparing an explanatory document that could be posted on the Solar Keymark Web page.

Jaime Fernández also informed of the need to harmonize the rules and way of working in the use of the data sheets in case of OEM and OBL Certificates. The CB WG had discussed in its meeting the difficulty that arises when an OBL Keymark Certificate is granted and it is linked to OEM Keymark Certificate that is based on testing according to EN 12975-2. Even though for some time there may be some OBL and OEM Keymark Certificates that may not be using the same version of data sheets, it is preferred by the CBs to always use the new data base in any emission of Keymark Certificates (whether being renewed, modified or being granted for first time).



There was a conflict between Decision M20.D2 (use of new data sheet in any emission of Keymark Certificates) and section 3 of Annex H and section 3.1 of Annex G of the Solar Keymark Scheme Rules since the latter allowed the use of 'old' data sheets in new emissions of Keymark Certificates.

After a debate on the best way to proceed, it was agreed that M20.D2 should always be in force, and therefore the following 2 Resolutions were taken:

Resolution M22.R5 – Modification of Annex H of SK Scheme Rules to comply with M20.D2 for all new certificates to have latest version of data sheets as annex

Section 3 document SKN_N0106_AnnexH_R3 is modified in such a way that all new certificates granted (whether a renewal or an OBL Certificate) always use the latest version of the data sheet, in compliance with M20.D2. The changes are presented below:

3. OEM/OBL certificates

What about customers who apply for an OBL certificate based on a valid OEM certificate tested according to EN 12975-2?

The OBL certificate may be issued based on the testing done according to EN 12975-2 at any time if its OEM certificate is also according to EN 12975-2, but the data sheet shall be based on the latest version of ScenoCalc. ~~at any time if its OEM Certificate is also according to EN 12975-2.~~ All certificates based on EN-ISO 12975 will be withdrawn on 2025-12-31 at the latest.

What about the renewal of an OBL certificate which is based on EN 12975-2?

If the OEM certificate is still based on EN 12975-2, then the OBL certificate will be renewed according to EN 12975-2, but the data sheet shall be based on the latest version of ScenoCalc.

Information on Vote: Unanimous decision

Resolution M22.R6 – Modification of Annex G of SK Scheme Rules to comply with M20.D2 for all new certificates to have latest version of data sheets as annex

Section 3.1 of document SKN_N0106_AnnexG_R1 is modified in such a way that all new certificates granted (whether a renewal or an OBL Certificate) always use the latest version of the data sheet, in compliance with M20.D2. The changes are presented below:

- ~~It is recommended that also~~ the data sheet of the respective OEM certificate is shall be based on the latest version of ScenoCalc. ~~updated to the new Excel format if necessary.~~

Information on Vote: Unanimous decision

Item 25: Proposal for decisions from the Experience Circle of the German speaking Test Laboratories for Solar Thermal Systems and Components” (EK-TSuB – Prüflaboratorien)

Harald Drucek, chair of the Experience Circle of the German speaking Test Laboratories for Solar Thermal Systems and Components, presented three proposals.



The first one was related to the information that should go on the comments of the data sheets that are incomplete when the test was done according to EN 12975-2. After some debate and comments of improvement by some members, the following Decision was taken:

Decision M22.D9 – Comments on data sheets when original test is not performed by ISO 9806

Proposal for a decision related to the use of the solar collector data sheet Version 5.01

According to SKN Resolution M20R1 only the collector data sheet version 5.01 of date 2016-03-01 are allowed to be used. In case not all information required to fill out the data sheet completely is available, the following remark shall be added in the comment field:

“This data sheet is not complete as the testing of the collector was performed according to EN 12975-2:2006 (which is replaced by EN ISO 9806:2013)”

Information on Vote: Unanimous decision

The second proposal is related to the improvement of the data sheets for systems by incorporating information of the performance model parameters. Stephan Fischer made a short presentation which may be found in Annex D. The following Resolution was taken:

Resolution M22.R7 - Completion of the SK data sheets for system tests according to EN 12976 by adding the model parameters required for the thermal performance prediction

The data sheets for systems tested according to EN 12976 shall be completed by adding the system performance model parameters determined according to ISO 9459-2 and ISO 9459-5 used for the system performance prediction.

Information on Vote: Unanimous decision

This Resolution on the data sheet was accompanied by the proposal to modify also the Scheme Rules, and the following Resolution was taken:

Resolution M22.R8 - Extension of clause 4.3.1 (System families (EN 12976 - Factory made systems) of the Solar Keymark Scheme Rules

Clause 4.3.1 of SKN_N0106R29-SKNSchemeRules is extended by the following sentence:

“The model parameters determined for systems not physically performance tested according to ISO 9459-2 and ISO 9459-5 have to be stated in the test report and the Solar Keymark data sheet together with the results of the Long Term Performance Prediction (LTP) resulting from the use of these model parameters for the specific system(s).”

Information on Vote: Unanimous decision

In practice, M22.R7 could be considered a Decision instead of a Resolution, since it did not actually propose a change in any documents. Therefore it was necessary to actually implement the changes in the data sheet. So in order to do this, the following Decision was taken:



Decision M22.D10- System data sheet WG to prepare the work related to Resolution M22.R7

A WG is created to develop the work for the Resolution M22.R7 . WG members are: Maria Carvalho (Chair), Jan Erik Nielsen, Stephan Fischer, Ulrich Fritzsche and Patrik Ollas. The final work for a proposal for Resolution will presented at the next SKN meeting of autumn 2017.

Information on vote: Unanimous decision

Item 26: Report from WG for revising/merging annex A1 and A1b taking into account related GSCN documents and comments from the GSCN WG

Jaime Fernández informed about the situation of the inspection report used in the GSCN and how this could affect some CBs and IBs. There are two inspection reports that are slightly different and that may be used by Solar Keymark CBs and IBs, (SKN_N0106_AnnexA1_R0 and SKN_N0106_AnnexA1b_R3). The inspection report that is used in the GSCN is based on the latter. Jaime Fernández and Stephan Fischer had addressed this issue and came to the conclusion that is not an issue of major importance at the moment and it did not need a merging of the inspection reports. Since there weren't any opinions demanding a change in the documents and there is always a possibility of merging the inspection reports in the future with any changes that may come with the new revision of EN 12975 within the next years, no other actions were taken.

Item 27: Information from CEN Keymark Management and update of work done related to D3 and work with KMO to improve promotion with other Keymark Stakeholders

Katharina Meyer gave an overview on the work of the Keymark Management Organisation (KMO) in 2016 and Q1 of 2017 and the planned activities for 2017. All participants were invited to give input into the marketing presentation sent to them by Jan Erik Nielsen and forward the filled out presentation to keymark@dincertco.de.

Item 28: Harmonization and Quality of Solar Keymark

Jaime Fernández asked the SKN about the level of satisfaction in case it was necessary to start a WG to analyze and improve the degree of harmonization and quality of the Solar Keymark Certification System, and no actions seemed necessary.

Item 29: Update on Complaints

Jaime Fernández informed about two new SKN documents, SKN_N0327R0-Complaint process 1 and SKN_N0328R0-Complaint process 2. These documents maintain confidentiality but inform about the steps taken in both complaint processes that took place in 2016

Soeren Scholz, in his role of Chair of CB WG, informed that one of the complaint processes was ongoing because one of the complainants had raised his complaint to the head of CB. Therefore, and in application of the Solar Keymark Scheme Rules, a Complaint Committee is



being created for the first time. The process would now continue its course; the SKN will be informed at the next meeting and the corresponding SKN document would be updated with the course of action.

A debate followed on this subject. Some members expressed the importance of this process and the need for the SKN members involved to be aware and to take the corresponding responsibility in their work. There were also expressions of concern on the fact that the process had been treated too slowly and also that the complainants should always receive a clear information as to what actions were being taken.

Item 30: Update on Action Plan working groups: Strategy WG (JF), AP2 Marketing and Communication WG (PD), AP3 Installers WG (KM), AP 6 Legal Requirements (GVA)

In the SKN meeting of Berlin in March 2016 Jaime Fernández presented the proposal to start working on a strategy for the Solar Keymark. Some action plans were approved in order to start working in some specific fields. With respect to the elaboration of the Strategy itself, an SCF Project had been approved for funding and work would start right away. A final formulation of the Strategy would be presented in the March 2018 SKN meeting.

Pedro Dias, Chair of WG for Marketing and Communication (AP2), made a presentation which may be seen in Annex F- Marketing and Communication. The WG had made a survey within the SKN members and the results were shown. A Project had received funding from the SCF 8th call and work will start right away. Actions would be taken throughout the year to:

- prepare a marketing plan
- improve the web site
- start a Newsletter
- cooperate with KMO
- prepare a ready to use package for license holders and manufacturers
- prepare a short video
- develop a map of support schemes relevant to solar thermal in Europe.

Katharina Meyer, Chair of WGs for Installers (AP3) and for New Products (AP4) informed that the work on the certification of installers was ongoing and that regarding to the new products, the WGs for air collectors and PVT collectors were active.

Gerard Van Amerongen, Chair of WG for new legal requirements and future changes (AP6) presented his update which can be seen in Annex G- legal requirements and changes. Three SCF Projects were presented: Scope of products, Added value to Keymark Certificates and Quality and Durability. The first two were recommended for funding and work will be developed throughout the year.

Item 31: Report or Update on “Inter-laboratory Comparison - ILC on Data Analysis”, SCF7 Project



Andreas Bohren informed that work was not completed yet and that a presentation would be made at the next SKN meeting.

Item 32: Solar Certification Fund Projects – General Status Reports / PD

Pedro Dias presented the status of SCF Projects which can be read in Annex H.

Item 32a: Update on Package Label

Pedro Dias presented an updated with the latest developments with respect to the Package Label, see Annex I.

Item 33: Update on Global Solar Certification Network

Jan Erik made a short update on the GSCN (related to SCF6-9). The Network was now officially running and the first members were already joining. Members are listed at: <http://gscn.solar/members/list%20of%20members.html>.

A GSCN meeting had been held the day before in the same premises.

Item 34: Update on other important information:

The liaison officers made their updates and these can be read in the following:

- Annex J– Liaison Officer Report TC312 WG1 – Andreas Bohren
- Annex K – Liaison Officer Report TC 312 – Andreas Bohren in the name of Vassiliki Drossou
- Annex L – Liaison Officer Report TC 228 and TC 371 – Gerard van Amerongen
- Annex M – Liaison Officer Report TC 128 – Korbinian Kramer
- Annex N – Liaison Officer Report TC 164 – Jean-Marc Suter

An update was also given by Stephan Fischer as Liaison Officer of TC 117. There had also been a CB WG meeting in preparation for this meeting and its conclusions had been shared in different items throughout this meeting. The IB³ WG had not met. There were no reports of misuse of the Solar Keymark.

Item 35: Any other business

Stephan Fischer made a short presentation see Annex O Family building ICS systems. This was a proposal for a Project to determine how to create families for ICS systems that would require some funding.

Andreas Bohren made a short presentation on the recently funded SCF Project to for the development of a tool to scan the Solar Keymark Data base and give information on updates, modifications and any mistakes. (See Annex P Argus)

³ IB: Inspection Bodies



Item 36: End of meeting

Jaime Fernández thanked all of the participants, especially Korbian Kramer and Jan Erik Nielsen for the excellent hosting, preparation and management of the meeting.

The next meeting will be held at Larnaca, Cyprus, 17-18th October, and information would be sent out shortly.

The minutes were prepared by Jaime Fernández with assistance of Jan Erik Nielsen.

Annex A Participants

Participants list

SKN meeting March 2017

First name	Last Name	Company/organisation	Country	e-mail	Type of organisation	Signature
Harald	Poscharrig	GREENONTEC/Industry	Austria	harald_poscharrig@greenonotec.com	Industry/manufacturer	
BENEDICT	HAN	TÜV Rheinland (Shanghai) Co., Ltd.	CHINA	Benedict.Han@tuv.com	Test lab	
Jan Erik	Nielsen	Solarkey Int.	Denmark	jan@solarkey.dk	Manager	
Ashraf	Kraidy	RCREEE	Egypt	ashraf.kraidy@rcreee.org	Task 57 sub-task leader	
Hagos	Testay	Ethiopian standards agency	Ethiopia	hagos8890@yahoo.com	standard body	
Pedro	Dias	ESTIF	EU	pedro.dias@estif.org	ESTIF	
Jean-Baptiste	Beyszac	CESP-University of Perpignan	France	jean-baptiste.beyszac@univ-perp.fr	Test lab	
Emmanuel	LEGER	CETIAT	France	emmanuel.leger@cetiat.fr	Test lab	
Franck	Cheutin	CSTB	france	franck.cheutin@cstb.fr	Test lab	
SOPHIE	BOCQUILLON	EUROVENT CERTITA CERTIFICATION	FRANCE	s.bocquillon@certita.fr	Certification body	
Katharina	Meyer	DIN CERTCO	Germany	katharina.meyer@dincertco.de	Certification body	
Soren	Scholz	DIN CERTCO GmbH	Germany	soeren.scholz@dincertco.de	Certification body	
Christian	Stadler	ESTESC / Arcon-Sunmark GmbH	Germany	chs@arcon-sunmark.com	Industry/manufacturer	
Korbinian	Kramer	Fraunhofer ISE	Germany	korbinian.kramer@ise.fraunhofer.de	Test lab	
Stefan	Mehner	Fraunhofer ISE	Germany	stefan.mehner@ise.fraunhofer.de	Test lab	
Garsten	Lampe	ISFH	Germany	c.lampe@isfh.de	Test lab	
Harald	Druck	ITW/ITZS	Germany	druck@itw.uni-stuttgart.de	Certification body	
Stephan	Fischer	ITW/ITZS	Germany	fischer@itw.uni-stuttgart.de	Test lab	
markus	barek	sunlumo	germany	markus.barek@sunlumo.com	Inspector / Inspection body	
Ulrich	Fritzsche	TUV Rheinland Energy GmbH	Germany	ulrich.fritzsche@de.tuv.com	Test lab	
Daniele	Bernachioni	ICIM S.p.A.	Italy	daniele.bernachioni@icim.it	Certification body	
Angelo	Del Giudice	ICIM S.p.A.	Italy	angelo.delguidice@icim.it	Certification body	
Paolo	Ricci	Istituto Giordano S.p.A.	Italy	p.ricci@giordano.it	Test lab	
Matteo	Sartori	Kiwa Cermet Italia S.p.A.	Italy	matteo.sartori@kiwaermet.it	Certification body	
Oscar	Mogro	BDR Therman BV	Netherlands	oscar.mogro@bdrtherma.com	Industry/manufacturer	
João	Santos	CERTIF - associação para a Certificação	Portugal	jsantos@certif.pt	Certification body	
Pedro	Cardoso	CTCV	Portugal	pcardoso@ctcv.pt	Test lab	
Maria João	Carvalho	INEG	Portugal	mjoao.carvalho@ineg.pt	Test lab	
Martina	Surinova	TSU Priestany	Slovakia	martina.surinova@tsu.sk	Certification body	
Jaime	Fernández	AENOR	Spain	jaimefernandez@aenor.com	Certification body	
Jose Ramon	Hernández	AENOR	SPAIN	jfhernandez@prysma.es	Inspector / Inspection body	
Alberto	Garcia de Jalón	CENER	Spain	agarciajalón@cener.com	Test lab	
Laura	Vargas Vázquez	INTA	Spain	vargasvl@inta.es	Test lab	
Luis	Gonzalez-Monroy	Termicol Energia Solar	Spain	luis.gonzalez@termicol.es	Industry/manufacturer	
Magnus	Stursson	SP Certification	Sweden	magnus.stursson@sp.se	Certification body	
Patrick	Ollas	SP Technical Research Institute of Sweden	Sweden	patrick.ollas@sp.se	Test lab	
Hanspeter	Weiss	Ernst Schweizer AG	Switzerland	hanspeter.weiss@schweizer-metallbau.ch	Industry/manufacturer	
Gerard	van Amerongen	Holland Solar / VAConsult	The Netherlands	vaconsult@vaconsult.net	Industry/manufacturer	
Les	Nelson	IAPMO	USA	les.nelson@iapmo.org	Certification body	
ANDREAS	BOURENS	SRC	Switzerland	ANDREAS.BOURENS@SRC.CH	Test lab	
Yves	Helenkauer	Fraunhofer ISE	Germany	helenkauer@ise.fraunhofer.de	Test lab	
KONSTANTIN	GEHNER	"	"	konstantin.gehner@ise.fraunhofer.de	"	

Annex B Insulation Exchange


 INSTITUT FÜR SOLARTECHNIK
 Institut für Solartechnik
 Hochschule für Technik HTW
 Chriesweg 10, 7840 Reppertswil
 Tel. +41 52 222 48 21
 www.spf.ch


 LNEG
 Laboratório de Energia Solar
 Laboratório Nacional de Energia e Geologia, I.P.
 Estrada do Paço do Lumiar, 22, 1649-018 Lisboa
 Tel. +351 213 504 786
 www.lneg.pt

Exchange of Insulation Materials in Solar Thermal Collectors

SCF VII Project Proposal to SKN

SKN2017 Freiburg i.Br.

 INSTITUT FÜR SOLARTECHNIK

 LNEG

The document was distributed before last SKN meeting

The technical content was presented in Chania

Request for input in Chania
One comment file received (The oscar goes to Jaime !)

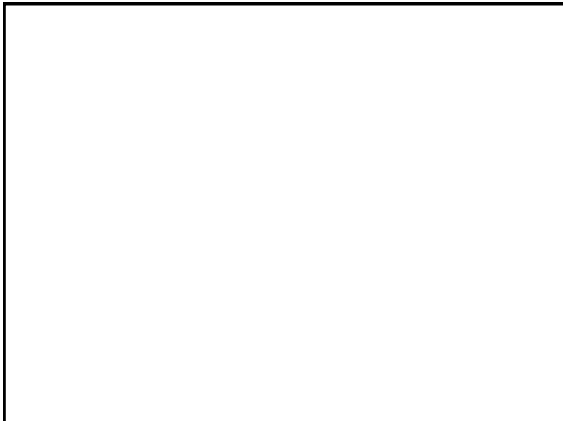
Comments were included and considered,
 Revised document was distributed.


The procedure will be included in the ISO 22975 for insulation


Thank you for voting with a positive attitude.
 Maria & Andreas

✓

All is described in detail in the distributed document !



 INSTITUT FÜR SOLARTECHNIK

 LNEG

Exchange of insulation materials in certified collectors.


Question: Can Material X be replaced by material Y


Basis: Confirm

A) Equivalence of material and of physical parameters

B) Equivalent rating of outgassing

All is described in detail in the distributed document !

 INSTITUT FÜR SOLARTECHNIK

 LNEG

A) Equivalence of materials and of physical parameters


If several parameters such as


- Type of material
- Density
- Fire safety
- Dimension
- Thermal conductance
- etc.

are within certain limits, Materials are deemed «equivalent»

✓

All is described in detail in the distributed document !

 INSTITUT FÜR SOLARTECHNIK

 LNEG

B) Equivalent rating of outgassing

Two methods to rate outgassing are defined



- > Laboratory test using samples of materials
- > Collector Test using complete collectors

ϑ_{\max} = Maximum rated temperature of the insulation


If $\vartheta_{\max}(X)$ and $\vartheta_{\max}(Y)$ are within certain limits, Materials X and Y are deemed equivalent with respect to outgassing.

✓



All is described in detail in the distributed document !

Fill in Form Sheet

Properties of the collector with original insulation material				
Solar Keymark Register Number of collector	011.75007 X			
Climate Class for collector test	A			
Insulation material to be replaced, indicate ID number of SK DB Insulation	225			
Stagnation temperature calculated for the tested climate class (see Chapter 7.2)	230 °C			
or				
Maximum rated temperature of the insulation θ_{max} (only if registered SKN DB)				
New insulation material				
Insulation material to be replaced (Brand name)	Super insulation X355			
ID number of SK DB Insulation / test report	124			
Maximum application temperature θ_{app}	220 °C			
Comparison				
	Material A [Reference]	Material B [New]	Limits/Conditions	OK?
θ_{max}	230	230	$\theta_{max} \geq \theta_{max}$	✓
Applicable EN Standard	EN 13165	EN 13165	Must be same	✓
Total Specified dimension L x W x H	160 x 90 x 50	160 x 90 x 50	+/- 10%	✓
Density	50 kg/m ³	45 kg/m ³	(+/- 20%)	✓
Total thermal conductance	130 W/K	100 W/K	(+/- 20%)	✓
Reaction to Fire	A1	A1	The same	✓
Covered Insulation	Al-Foil	Al-Foil	Chapter 6.4	✓
Glass structure	Clear	Clear	Chapter 6.2	✓
Alt treatment / no treatment	No	No	Chapter 6.3	✓
Data sheet available / filed	Yes	Yes		✓
Result				OK 

All is described in detail in the distributed document !

SK Database of materials (Excel sheet) Rules for registration.

ID#	Brand name	Producer	θ_{max}	Structure	ARE	Density kg/m ³ Lambda	Cover	Validity Date	Reaction to fire	EN Standard
1	Insulation A	ID2 210	Y/N	Y/N	50	120	Black Fleece	12.03.2019	A	EN 13165
2	Insulation B	ID2 190	Y/N	Y/N	70	230	Y/N	16.04.2021	A	EN 13164
3	Etc.									

Maria João Carvalho (LNEG) and Andreas Bohren (SPF)

All is described in detail in the distributed document !


Annex C Coloured Glass

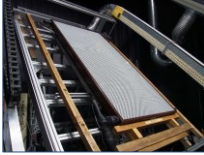
SPF INSTITUT FÜR SOLARTECHNIK
 Institut für Solartechnik
 Hochschule für Technik HTW
 Chriesweg 10, 7840 Rapperswil
 Tel. +41 52 202 48 21
 www.spf.ch

SKN2017 Freiburg i.Br.

Solar Keymark for coloured glass in Solar Thermal Collectors

Proposal of ad-hoc WG:
 A. Bohren (SPF), S. Fischer (itw),
 H. Poscharnig (GoT), H.-P. Weiss (Schweizer Metallbau)
 Proposal to the SKN





Dyed Glasses
Edge printing
Printed glasses

© Schweizer Solarpress 2015

SPF INSTITUT FÜR SOLARTECHNIK

History:

- Idea presented in webmeeting in december 2016,
- Call for participation in working group:
- S. Fischer (itw),
- H. Poscharnig (GoT),
- H.-P. Weiss (Schweizer Metallbau)
- A. Bohren (spf)
- Webmeetings took place
- Presentation to the SKN, March 2017 - today

The proposal is based on several requests from industry !
 Opens the market for new and jolly façade applications

All is described in detail in the distributed document !

SPF INSTITUT FÜR SOLARTECHNIK

Step 1: Determination of solar transmission of covers
 Depending colouring technique/type
 Depending on the range of colours

Step 2: Rules for building families of collectors
 Performance for different colors
 Additional durability tests

Option to register coloured glasses:
 Other manufacturers can use the same glasses in their collectors
 with minium testing efforts.

All is described in detail in the distributed document !

SPF INSTITUT FÜR SOLARTECHNIK

- Everybody was welcome in the Working group.
- Procedure elaborated by industry and test labs.
- No external financing.

Thank you for voting with a positive attitude

All is described in detail in the distributed document !

Annex D Resolution model Parameters EN 12976

Item 25
22nd Solar Keymark Network meeting

Stephan Fischer
Institute for Thermodynamics and Thermal Engineering (ITW)
Research and Testing Centre for Thermal Solar Systems (TZS)
University of Stuttgart
Pfaffenwaldring 6, 70550 Stuttgart, Germany
Email: fischer@itw.uni-stuttgart.de
Internet: www.itw.uni-stuttgart.de

Stephan Fischer Item 25, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

Results of performance test EN 12976

Performance parameters

A_c^* [m ²]	u_c^* [W/(m ² K)]	U_s [W/K]	C_s [MJ/K]	D_L [-]	S_c [-]
2.307					
± 0.044					

Performance indicators for solar only and solar preheat systems on annual base for a demand volume of 200 MJ

Standort (Breitengrad) Location (latitude)	Q_{s0} [MJ/a]	Q_L [MJ/a]	Q_{sw} [MJ/a]	f_{sol} [-]
Stockholm (59.6° N)	11103	5951	0	0.536
Würzburg (49.5° N)	10643	6056	0	0.569
Davos (46.8° N)	12050	8005	0	0.739
Athen (38.0° N)	8263	7189	0	0.870

Performance indicators

Stephan Fischer Item 25, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

Data sheet performance test EN 12976

For each storage and collector size, give number of collectors

Collector name	Solcraft 100	Solcraft 150	Solcraft 200
Solcraft 100	1		
Solcraft 150		1	
Solcraft 200			1

Name of system configuration

Collector name	No. Collectors	Storage name
Solcraft 100	1	Solcraft 100

Calculated annual results for "solar-only / preheat" system

Location	Daily drawoff 100 l		Daily drawoff 150 l		Daily drawoff 200 l	
	Q _{s,hot} [MJ/a]	Q _{s,pre} [MJ/a]	Q _{s,hot} [MJ/a]	Q _{s,pre} [MJ/a]	Q _{s,hot} [MJ/a]	Q _{s,pre} [MJ/a]
Stockholm SE	4976	5948	4976	5948	4976	5948
Würzburg DE	4389	3824	4389	3824	4389	3824
Davos CH	4807	2136	4807	2136	4807	2136
Athen GR	3242	2488	3242	2488	3242	2488

Just Performance indicators are given **performance parameters are missing**

Stephan Fischer Item 25, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

Proposal for resolution

Proposal for resolution related to the completion of the SK data sheets for system tests according to EN 12976 by adding the model parameters required for the thermal performance prediction

The data sheets for systems tested according to EN 12976 shall be completed by adding the system performance model parameters determined according to ISO 9459-2 and ISO 9459-5 used for the system performance prediction

Stephan Fischer Item 25, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

Results of performance test EN 12976

Performance parameters

A_c^* [m ²]	u_c^* [W/(m ² K)]	U_s [W/K]	C_s [MJ/K]	D_L [-]	S_c [-]
2.307	6.076	2.450	1.019	0.150	0.067
± 0.044	± 0.483	± 0.233	± 0.016	± 0.026	± 0.013

A_c^* [m ²]	u_c^* [W/(m ² K)]	U_s [W/K]	C_s [MJ/K]	D_L [-]	S_c [-]
1.171	7.979	1.058	0.693	0.108	0.110

Extrapolated results

Stephan Fischer Item 25, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

Proposal for resolution

Proposal for resolution related to the completion of the SK data sheets for system tests according to EN 12976 by adding the model parameters required for the thermal performance prediction

The data sheets for systems tested according to EN 12976 shall be completed by adding the system performance model parameters determined according to ISO 9459-2 and ISO 9459-5 used for the system performance prediction

Stephan Fischer Item 25, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017



Thank you ...



Annex F Marketing and Communication



Solar Keymark SKN

Marketing and Communication WG (PD)

Tuesday 7 March, 2017




THE Quality Label for Solar Thermal Products in Europe



Ongoing actions




THE Quality Label for Solar Thermal Products in Europe

Review current SKN brochure


Update, for 8 languages out of 10:

- List of certification bodies
- List of accredited test labs
- Map of certification bodies and test labs

Where are the certification bodies and test labs located?

CERTIFICATION BODIES:



- ANAB (Germany)
- BSI (UK)
- CECOC (Belgium)
- CECOC (France)
- CECOC (Italy)
- CECOC (Spain)
- CECOC (Austria)
- CECOC (Czech Republic)
- CECOC (Slovakia)
- CECOC (Poland)
- CECOC (Hungary)
- CECOC (Slovenia)
- CECOC (Croatia)
- CECOC (Bulgaria)
- CECOC (Romania)
- CECOC (Greece)
- CECOC (Cyprus)
- CECOC (Malta)
- CECOC (Lithuania)
- CECOC (Latvia)
- CECOC (Estonia)
- CECOC (Finland)
- CECOC (Sweden)
- CECOC (Denmark)
- CECOC (Netherlands)
- CECOC (Luxembourg)
- CECOC (Ireland)
- CECOC (Portugal)
- CECOC (Spain)
- CECOC (France)
- CECOC (Germany)
- CECOC (Italy)
- CECOC (Austria)
- CECOC (Czech Republic)
- CECOC (Slovakia)
- CECOC (Poland)
- CECOC (Hungary)
- CECOC (Slovenia)
- CECOC (Croatia)
- CECOC (Bulgaria)
- CECOC (Romania)
- CECOC (Greece)
- CECOC (Cyprus)
- CECOC (Malta)
- CECOC (Lithuania)
- CECOC (Latvia)
- CECOC (Estonia)
- CECOC (Finland)
- CECOC (Sweden)
- CECOC (Denmark)
- CECOC (Netherlands)
- CECOC (Luxembourg)
- CECOC (Ireland)
- CECOC (Portugal)



A more in-depth revision of the brochure is scheduled in 2017.

Form available for revision of the current brochure in the SK intranet

Deadline for comments: April 7, 2017.

THE Quality Label for Solar Thermal Products in Europe

Website Improvement

- Website update
 - Update text
 - New topics
- Inputs and comments welcomed
- Form available in the SK intranet
- Deadline for comments: April 7, 2017







THE Quality Label for Solar Thermal Products in Europe

Meeting with the KMO

- KEYMARK Promotion Meetings
 - 27th January 2017
 - KMO presentation of a new logo
 - Choice between different options
 - Feedback from SKN members needed
 - 6th February 2017
 - Discussion on promotion actions by KEYMARK
 - Coordinated by KMO
 - Feedback from the SKN members needed

THE Quality Label for Solar Thermal Products in Europe



SCF Communication Proposal SKN Communication WG




THE Quality Label for Solar Thermal Products in Europe

Main objectives & impacts of the project

Main objectives of the project:

- Facilitate the contribution of the Communications Working Group in the improvement of the promotional work related to SKN
- Engage with KMO in strategic activities related to the promotion of the Keymark scheme
- Develop a Marketing Plan
- Develop further SKN Communications tools
 - Ex: ready-to-use package for license holders and manufacturers

Expected impact:

- Increased notoriety of the Keymark scheme
- Short to medium term strategy for SKN communication work
- Enhanced SKN promotion
- Increase the added value of the SK certification certification



THE Quality Label for Solar Thermal Products in Europe

Planned deliverables

Name	Short description
D1	SKN Marketing Plan 2017 - 2018 & Communications activities support Development of a marketing plan for 2017 - 2018 and support SKN general communications activities.
D2	SKN/SCF Newsletter Creation of a newsletter concept which will be sent to a targeted audience (Identifying the audience, the frequency as well as the production of the newsletter first editions should be discussed with the Communication Working Group)
D3	Updating the SKN website Updating and developing new content for the SKN website
D4	A ready-to-use package for licence holders and manufacturers This ready-to-use package will be comprised of an updated version of the SKN brochure in addition to a series of fact sheets designed to be posted on licence holders' and manufacturer's websites.
D5	Videos Creation of 2 animated videos explaining the benefits of the keymark.
D6	Cooperation with KMO in Keymark promotion Engage with Keymark Management Organisation (KMO) and other schemes on the Keymark branding and promotion.
D7	Developing a map of support schemes relevant for ST in Europe Development of a map which identifies the diverse subsidy bodies in Europe. This map should also indicate where the Solar Keymark is recognised and where it is not.



THE Quality Label for Solar Thermal Products in Europe

Results of the Questionnaire on SK Communication - SOLAR KEYMARK NETWORK - WG "Communications"



THE Quality Label for Solar Thermal Products in Europe

Who answered the survey?

- 25 answers
- 36 comments and additional inputs
- 12 Testing labs and Certification Bodies
- 7 Research Institutes
- 4 companies
- 2 others (one SKN and one unclassifiable)

If you want to download the full analysis of the results, they are published in the SKN intranet.



THE Quality Label for Solar Thermal Products in Europe

Results in a glance

- **C - Topics to be communicated should focus on:**
 - Explaining the effectiveness and gains of the SOLAR KEYMARK
 - » 80% of Essential
 - Lobbying for subsidies of solutions with certified products
 - » 72% of Essential
 - Presenting good solutions
 - » 68% of Essential
- **D - Actions to start with:**
 - Presentations / workshops for the decision markers on subsidy schemes (68% of Essential)
 - Workshop with support schemes bodies (72% of rather Essential)



THE Quality Label for Solar Thermal Products in Europe

Results in a glance

- **C - Topics to be communicated should focus on:**
 - Explaining the effectiveness and gains of the SOLAR KEYMARK
 - » 80% of Essential
 - Lobbying for subsidies of solutions with certified products
 - » 72% of Essential
 - Presenting good solutions
 - » 68% of Essential
- **D - Actions to start with:**
 - Presentations / workshops for the decision markers on subsidy schemes
 - » 68% of Essential
 - Workshop with support schemes bodies
 - » 72% of rather Essential



THE Quality Label for Solar Thermal Products in Europe




Update on KMO activities




THE Quality Label for Solar Thermal Products in Europe

Facts and Figures about Solar KEYMARK 2016



Facts about Solar KEYMARK	2016
Product categories	4
Valid certificates	1435
Main type certificates	604
Countries with certificate holders	35
Empowered certification bodies	12
Recognised test labs	24



THE Quality Label for Solar Thermal Products in Europe

Promotional activities of KMO in 2016/2017

- Online questionnaire for scheme group members in 2016-06
- Exchange of experience with scheme group members in 2016-07
- Presentation of KEYMARK at relevant events
 - May 2016 EHPA Heat pump FORUM in Paris
 - October 2016 Insulation KEYMARK Conference in Berlin
 - January 2017 QUALICheck workshop in Lyon
- Development of new KEYMARK Schemes (meetings and presentations)
- Website (Empowered Bodies, Scheme Groups, Events, FAQs)
- Promotion material (Flyer, Roll up, Presentation)
- Template documents for use by Scheme Groups



THE Quality Label for Solar Thermal Products in Europe


What should be the promotional priorities for the KMO?

1. Regarding the general KEYMARK promotion
2. For the Solar Keymark scheme promotion

For the each question, what specific actions should be taken for the following audience?

- Group 1: Manufacturers/ Suppliers/ Installers
- Group 2: National authorities/ End consumers
- Group 3: Interested parties
- Group 4: 3rd Parties (CB, TL, IB)

Form available in the SK intranet - Deadline for comments: April 7, 2017.



THE Quality Label for Solar Thermal Products in Europe





Join the SKN communication WG



THE Quality Label for Solar Thermal Products in Europe

Annex G AP6 Legal Requirements and Changes in Market

vA Consult
Consultancy for renewable energy in the built environment




Action Plan AP6

Legal requirements and market changes

Gerard van Amerongen
 on behalf of
 SKN workgroup
 SKN 07.03.2017 Freiburg

1

vA Consult




Work done previous months

- Continuation of WG activities
 - with inputs from SCF projects
- Drafting of three SCF project proposals:
 - Scope of products Approved
 - Quality and durability Rejected
 - Added values Approved
- All projects have their own project team (participants)
 - With communication (input/output) of the workgroup

2

vA Consult



SCF8-SK-Scope-Products


Approved

– Broadening the scope of Solar Keymark products -

- Feasibility study
 - New certification schemes aimed at systems with solar contribution
 - Identify the options with a relevant link to:
 - Regulations (energy label, Eco design, EPBD, ..)
 - Market trends (expected market requirements system performance)
 - And other renewable options (e.g. heat pumps)
- Ensure the future use of existing and new certification schemes
 - E.g. EPBD, ErP,
- Common task AP6 and AP4
- Report in next SKN meeting

3

vA Consult



SCF8-SK-Qual&Durab


Rejected

– Keeping up with quality and durability issues -

- Investigation towards additional quality aspects to be implemented in Solar Keymark
 - Proposal, with time path for adoption in SK
 - (e.g. drinking water, construction, ...)
- Identification of new quality aspects for further development
 - E.g. emissions, energy costs (link to SCF8-SK-Products)
- Stimulating development of new standards
 - E.g. life cycle assessment
- Report SKN meeting 2018

4

vA Consult



SCF8-Add-Value

Approved

– Solar Keymark added value of the certificates -

- Enhance the usability of the SK data
 - Product databases (BIM, Labelpack A+) and desing tools
- Implement new SK service: supply ErP documentation
 - Links to existing SCF projects:
 - SCF5-DATABASE and SCF6-SK-ECOLabel
- Link to WH AP2 (marketing and communication) and KMO
- Report SKN meeting 2018

5

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Closure

Thanks for your attention

Always available for questions and comments during coffee, lunch and dinner!

6

Annex H SCF Status Projects



Solar Keymark SKN meeting

22nd SKN meeting
8 March 2017
Freiburg

The Solar Keymark
CEN Keymark Scheme

THE Quality Label for Solar Thermal Products in Europe

Solar Certification Fund

- 95 projects approved so far:

– Closed:	59	– 1 st call:	9
– Reporting:	4	– 2 nd call:	7
– On-going:	21	– 3 rd call:	18
– Contracting:	4	– 4 th call:	16
– Deferred:	4	– 5 th call:	18
– Cancelled:	3	– 6 th call:	13
		– 7 th call:	14

The Solar Keymark
CEN Keymark Scheme

THE Quality Label for Solar Thermal Products in Europe

Solar Certification Fund

- 1 013 745 EUR (approx.) allocated to projects

– 1 st call:	145 950 EUR
– 2 nd call:	79 910 EUR
– 3 rd call:	170 565 EUR
– 4 th call:	183 420 EUR
– 5 th call:	179 900 EUR
– 6 th call:	124 000 EUR
– 7 th call:	130 000 EUR

The Solar Keymark
CEN Keymark Scheme

THE Quality Label for Solar Thermal Products in Europe

Solar Certification Fund

- Closed projects
 - Report and deliverables approved by the SCF Steering Group
 - Balance payment done or being prepared
 - invoice requested or payment on pipeline
- Deferred projects
 - Projects that are on-hold
 - Waiting for one of the conditions for the project to occur (external)
- Cancelled projects
 - Request from contractor
 - Possible also by SG decision in extreme cases

The Solar Keymark
CEN Keymark Scheme

THE Quality Label for Solar Thermal Products in Europe

Solar Certification Fund

- On-going projects
 - Projects that are being executed
 - Periodic reports available (for the majority) at the Disc. Board
 - Deliverables (or drafts) may also be available at the Disc. Board
- Reporting projects
 - Projects that have concluded their work
 - Pending approval, because:
 - Reports (or deliverables) are to be provided (uploaded at DB)
 - Secretariat is preparing evaluation files
 - Evaluators are assessing report and deliverables
 - Evaluators requested additional clarification or work

The Solar Keymark
CEN Keymark Scheme

THE Quality Label for Solar Thermal Products in Europe

Closed projects

(since 21A SKN meeting - December 2016)

Not any.

The Solar Keymark
CEN Keymark Scheme

THE Quality Label for Solar Thermal Products in Europe

Closed projects due to the M21.R3 SKN resolution

- 4C16a - EcoDes-12
- 5C4.1 - LiasTC117_ITW
- 5C4.2 - LiasTC164_vAConsult
- 5C4.3 - LiasTC228_vAConsult
- 5C4.4 - LiasTC371_vAConsult
- 5C8.1 - EPBD_vAConsult
- 6C09 - GLOBCERT_SKI
- 5C2.1 - ECOlab_vAConsult
- 5C5.1 - TC312WG_SPF (waiting for final invoice)
- 6C13.1.2.3. LiasTC164_TC228_TC371



THE Quality Label for Solar Thermal Products in Europe

7

Cancelled

Ref.	Project Name	Responsible	Budget
2C04	PoQAS-SPF Solar Keymark Peizing for Quality Assurance	Andreas Bohren	€5,000.00
3C16	HarmReq_DINCERTCO Measures to harmonise the qualification requirements for inspectors and test labs	Sören Scholz	€7,000.00
6C03	Air-Coll-RR_ISE EN ISO 9806 Air collector Intercomparison Test	Stefan Mehnert	€11,000.00



THE Quality Label for Solar Thermal Products in Europe

8

Deferred

Ref.	Project Name	Responsible	Budget
4C19b	Industry_Interaction Ensure a better involvement of industry resources in standardisation work	Pedro Dias	€10,000.00
5C74	STANDARD_JMSuter Revision of EN ISO 9488 Solar energy – Vocabulary – German and French terminology: Translation and cross-border harmonization	Jean-Marc Suter	€10,000.00
6C03	Air-Coll-RR_ISE EN ISO 9806 Air collector Intercomparison Test	Stefan Mehnert	€11,000.00
7C12.1	Other_StoSol_ITW Development of calculation methods to reduce testing costs for the determination of heat losses for a series of stores	Stephan Fischer	€10,000.00



THE Quality Label for Solar Thermal Products in Europe

9

Reporting

Ref.	Project Name	Responsible	Start Date	End (est.)	SCF funding	Report received
6C01	12977-RR_IFEP Round Robin system testing according to EN 12977-5 and EN 12977-2	Christian Weißmüller	19-03-15	28-02-16	€18,000.00	12-10-16
6C04X	12976 RR Round Robin for Factory Made Systems yield calculation and data sheet generation	Maria João Carvalho	20-03-15	30-09-16	€9,000.00	24-02-17
7C09.1	LiasTC228 371_vAConsult	Gerard van Amerongen	01-04-16	31-03-17	€7,500.00	01-03-17
7C11	ScenoCalc Continuous maintenance of the ScenoCalc calculation software to handle de-bugging and smaller changes implemented on the request from Solar Keymark Network (SKN) partners	Patrik Ollas	29-02-16	31-01-17	€5,000.00	23-02-17



THE Quality Label for Solar Thermal Products in Europe

10

On-going (contracting)

Ref.	Project Name	Responsible	Start Date	End (est.)	SCF funding
6C12	LPA-joint Establishment of a link between Solar Keymark certification and Eco Design and Energy Labelling Contracting	Pedro Dias	08-02-16	31-12-17	€5,000.00
7C09.4	LiasTC312_SPF Primary objective of the project is to convene and administrate CEN TC 312/WG1 which is responsible for the elaboration of pr EN ISO 9806rev and pr EN 12975rev collector standards.	Andreas Bohren	01-04-16	31-03-17	€5,000.00
7C10	FlowScheme In this project a very condensed biunique encoding of the above mentioned parameters is presented that will cover more approx. 95% of collectors on the market.	Andreas Bohren	01-04-16	31-03-2017	€6,000.00
7C12.2	Other_ILC_SPF ILC RowDataProcessing	Andreas Bohren	08-03-16	31-10-2016	€10,000.00



THE Quality Label for Solar Thermal Products in Europe

11

On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	SCF funding
1C04a	EN13203-3 solar-SWT "Solar friendly" alternative to "EN 13203-3"	Dominik Bestenlehner	20-07-11	31-08-14	€14,950.00
5C1.2	SOLARKEYMARK_SKI The Solar Keymark brochure will be updated – taking also into account the increasing interest in Solar Keymark in overseas countries. Standard presentations for use of Solar Keymark Network members to promote Solar Keymark will be updated and developed.	Jan Erik Nielsen	30-05-14	31-12-14	€10,900.00
5C1.4	SOLARKEYMARK_ISE(GuideUp) With the publication of the new substantially revised IEN 12975 and EN ISO 9806 the guide and the brochure will be obsolete and need to be updated.	Stephan Mehnert	12-03-15	12-12-15	€10,000.00
5C13.1	GOODDEA_vAConsult(Legis) Drafting a CEN Technical Report on Legionella prevention in amongst other solar water heaters.	Gerard van Amerongen	30-05-14	31-03-15	€24,800.00
5C6.1	DATABASE_SKI All data from the Solar Keymark data sheets will be included in the searchable/sortable database. Option for showing/printing only selected data.	Jan Erik Nielsen	30-05-14	30-06-14	€15,100.00



THE Quality Label for Solar Thermal Products in Europe

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On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	SCF funding
SC7.2	STANDARD_SWT	Harald Drück	30-05-14	28-02-15	€13,000.00
	In order to perform the annual system simulation for solar combisystems, among others, space heating load profiles are required. <i>Report is missing</i>				
SC7.3	STANDARD_ITW	Stephan Fischer	30-05-14	31-03-15	€5,000.00
	Within the project test procedures and classifications for thermal insulation used in solar thermal collectors and thermal energy stores will be developed and pre normative documents drafted (ISO EN 22975). <i>Report is missing</i>				
6C05.2	22975-3-SK-SR	Jan Erik Nielsen	30-03-15	31-10-15	€8,000.00
	Solar Keymark scheme rules for EN ISO 22975-3 <i>Interim report received</i>				
6C06	CE_SPH	Andreas Bohren	20-03-15	08-03-16	€11,000.00
	CE Mark for Collectors <i>Interim report received</i>				
6C10.2	LCA_SWT	Dominik Bestenlehner	20-03-15	30-04-16	€9,000.00
	Elaboration of standardised methods for life-cycle assessment of solar thermal products focusing an environmental and financial aspects <i>Report is missing</i>				

On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	SCF funding
6C13.4	Liaison TC117_SWT	Stephan Fischer	01-10-15	31-10-16	€7,500.00
	Support of liaison officer of ISO TC 180 to IEC TC 117 <i>Report is missing</i>				
6C14.1	OTHER_MODEL_vAConsult	Gerard van Amerongen	20-03-15	31-03-16	€12,000.00
	Open source hourly software tool <i>Interim report received</i>				
6C14.5	Other_Lai	Sebastian Laipple	07-11-15	17-09-31	€3,500.00
	Support of CEN/TC 312 WG3 convenor <i>Interim report received</i>				
7C01	Label-New	Pedro Dias	01-04-16	31-03-17	€24,150.00
	New approaches for solar thermal under energy labeling <i>Report is missing</i>				
7C02	Label-ThermoSiphon	Pedro Dias	01-04-16	30-10-17	€15,000.00
	Thermosiphon Task-Force <i>Report is missing</i>				

On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	SCF funding
7C03	Label-Collector	Pedro Dias	01-04-16	30-10-17	€11,350.00
	Support to the development of a Collector Label <i>Report is missing</i>				
7C04	Label-DB	Gerard van Amerongen	01-04-16	31-03-17	€10,000.00
	Addition of ERP documentation to Solar Keymark database <i>Interim report received</i>				
7C07	GLOBCERT	Jan Erik Nielsen	01-05-16	30-04-17	€15,000.00
	Co-financing of participation in IEA-SHC task 57 concerning further implementation and promotion of Global Solar Certification and ISO standards. <i>Interim report received</i>				
7C08	Insulation	Andreas Bohren	01-05-16	31-03-17	€12,000.00
	Insulation materials in collectors <i>Report is missing</i>				
7C09.2	LiaisonTC164_SuterConsulting	Jean-Marc Suter	01-04-16	31-03-17	€5,000.00
	Financial support for the TC312 liaison activities for a period of one year <i>Interim report received</i>				
7C09.3	LiaisonTC117_SWT	Stephan Fischer	01-04-16	30-10-17	€7,500.00
	Support of liaison officer of ISO TC 180 to IEC TC 117 <i>Report is missing</i>				

Solar Keymark SKN meeting

22nd SKN meeting
8 March 2017
Freiburg

Annex I LabelPack A+ Energy Labelling

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 646600.

LabelPack A+



Implementation of the package label for space and water heaters:
Findings & next steps

Solar Keymark Network meeting
Freiburg, Germany, 8 March 2017

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LabelPack A+

FINDINGS

Implementation of the package label for space and water heaters



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 646600.

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Surveys

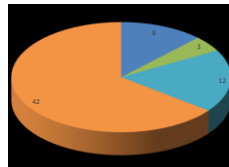
- Germany
 - BSW survey: Private sector (installers, manufacturers); public entities (local, federal), NGOs (Industry Association/chamber; Consumer protection): 81 valid responses out of 108
 - Co2-online survey: 132 valid responses
- Portugal
 - DECO: Online questionnaire to consumers: 210 valid responses
 - DECO: Inspection of 50 stores and 13 online shops.

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LabelPack A+

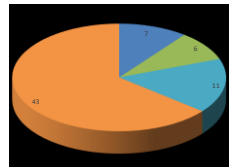
BSW-Solar Survey

In connection with the introduction of the EU energy efficiency label: Please estimate the number of inquiries from professionals before September 26, 2015



Category	Count
Very high (> 500)	12
High (100-500)	1
Medium (50-100)	43
Low (< 50)	34

In connection with the introduction of the EU energy efficiency label: Please estimate the number of inquiries from professionals after September 26, 2015



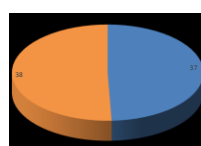
Category	Count
Very high (> 500)	12
High (100-500)	1
Medium (50-100)	43
Low (< 50)	34

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BSW-Solar Survey

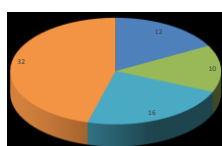
LabelPack A+

Did your organization receive any requests for support from professionals in the heating sector?



Response	Count
Yes	37
No	38

Did the interest in the EU energy efficiency label increase or decrease since September 26, 2015




Change	Count
Increase	12
Decrease	10
No change	16
No interest	52

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BSW-Solar Survey


LabelPack A+

Known calculation tools for the package label




Tool	Count
heizungslabel.de (VIG e.V.)	43
Calculating tool of LabelPack A+	13
Calculating tool of the EU: Commission (ZIP-Data)	8
Other	4

Are the information that are provided by private companies and other organizations easy to understand and useful for the following target groups?



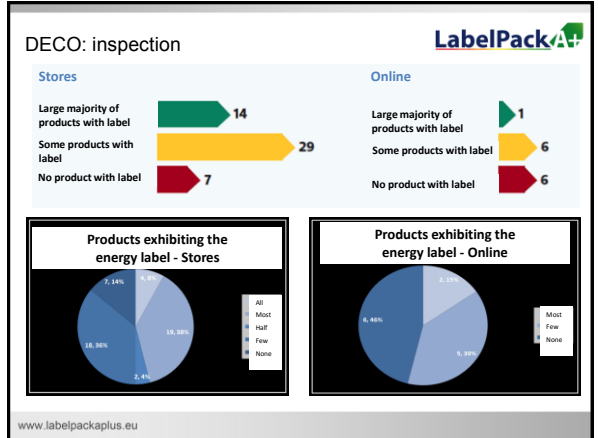
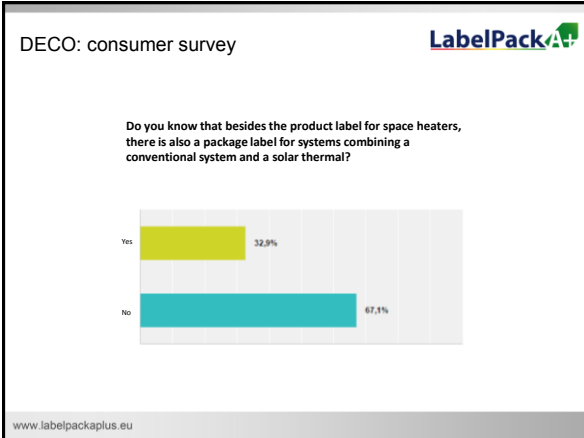
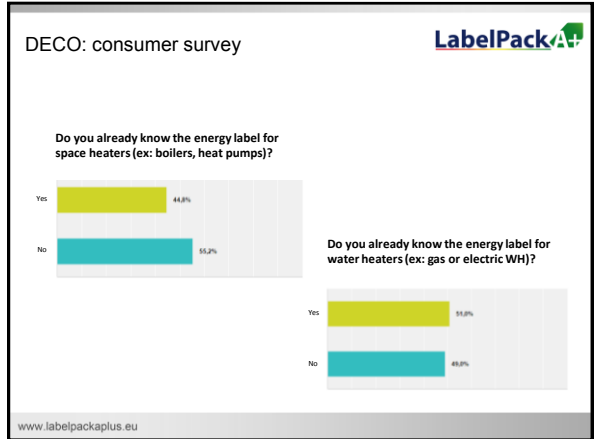
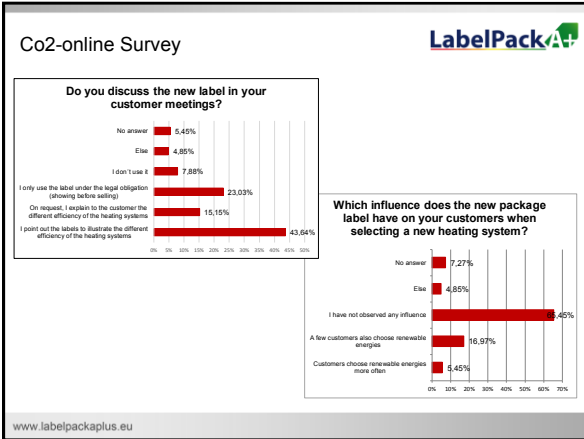
Target Group	Yes	No	Don't know
For professionals	27	3	7
For consumer	8	27	12

Did you receive complaints from customers who did miss the label on heating products offered?



Response	Count
Yes	2
No	20
Don't know	8

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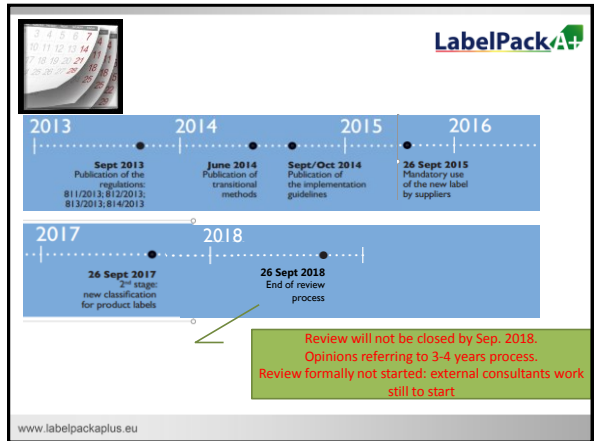
LabelPack A+


NEXT STEPS

Implementation of the package label for space and water heaters

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 646605

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Regulations		
	Energy Labelling Directive 2010/30/EU	Ecodesign Directive 2009/125/EC
Lot 1	811/2013 space heaters, combination heaters, packages of space heater, temperature control and solar device and packages of combination heater, temperature control and solar device	813/2013 space heaters and combination heaters
Lot 2	812/2013 water heaters, hot water storage tanks and packages of water heater and solar device	814/2013 water heaters and hot water storage tanks

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LabelPack A+

811/2013

Review

- No later than September 2018
- Assess any significant changes in the market shares of various types of heaters related to the labels set out in **points 1.2. and 2.2. of Annex III**
- Assess the feasibility and usefulness of indicating heater efficiency other than heat pump efficiency based on standardised heating seasons
- Assess the appropriateness of the package fiches and labels set out in **points 3 and 4 of Annex III** and **points 5 and 6 of Annex IV**
- Assess the appropriateness of including passive fuel heat recovery devices in the scope of this Regulation.

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LabelPack A+

Changes in market shares

811/2013

ANNEX III

1. SPACE HEATERS

1.2. **Label 2**

1.2.1. **Boiler space heaters in seasonal space heating energy efficiency classes A₊₊₊ to D**

1.2.2. **Cogeneration space heaters in seasonal space heating energy efficiency classes A₊₊₊ to D**

1.2.3. **Heat pump space heaters, except low-temperature heat pumps, in seasonal space heating energy efficiency classes A₊₊₊ to D**

1.2.4. **Low-temperature heat pumps in seasonal space heating energy efficiency classes A₊₊₊ to D**

2. COMBINATION HEATERS

2.2. **Label 2**


2.2.1. **Boiler combination heaters in seasonal space heating energy efficiency classes A₊₊₊ to D and in water heating energy efficiency classes A₊ to F**

2.2.2. **Heat pump combination heaters in seasonal space heating energy efficiency classes A₊₊₊ to D and in water heating energy efficiency classes A₊ to F**

3. PACKAGES OF SPACE HEATER, TEMPERATURE CONTROL AND SOLAR DEVICE

4. PACKAGES OF COMBINATION HEATER, TEMPERATURE CONTROL AND SOLAR DEVICE

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Appropriateness of the package fiches and labels

811/2013

ANNEX III

2. COMBINATION HEATERS

3. PACKAGES OF SPACE HEATER, TEMPERATURE CONTROL AND SOLAR DEVICE


4. PACKAGES OF COMBINATION HEATER, TEMPERATURE CONTROL AND SOLAR DEVICE

ANNEX IV

5. PACKAGES OF SPACE HEATER, TEMPERATURE CONTROL AND SOLAR DEVICE

6. PACKAGES OF COMBINATION HEATER, TEMPERATURE CONTROL AND SOLAR DEVICE

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LabelPack A+

812/2013

Review

- No later than September 2018
- Assess any significant changes in the market shares of various types of appliances
- Assess the appropriateness of **the package fiche and label set** out in **point 3 of Annex III** and **point 4 of Annex IV**.

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LabelPack A+

Appropriateness of the package fiches and labels

812/2013


ANNEX III

3. PACKAGES OF WATER HEATER AND SOLAR DEVICE

ANNEX IV

1. **PACKAGES OF WATER HEATER AND SOLAR DEVICE**

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 **LabelPack A+**

813/2013

Review

- No later than September 2018
- (a) the appropriateness of setting ecodesign requirements for greenhouse gas emissions related to **refrigerants**;
- (b) on the basis of the measurement methods under development, the level of the ecodesign requirements for **emissions of carbon monoxide, hydrocarbons and particulate matter** that may be introduced;
- (c) the appropriateness of setting stricter ecodesign requirements for the energy efficiency of boiler space heaters and boiler combination heaters, for the **sound power level and for emissions of nitrogen oxides**;
- (d) the appropriateness of setting ecodesign requirements for heaters specifically designed for **using gaseous or liquid fuels** predominantly produced from biomass;
- (e) **the validity of the conversion coefficient value**;
- (f) **the appropriateness of third party certification**.

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 **LabelPack A+**

814/2013

Review

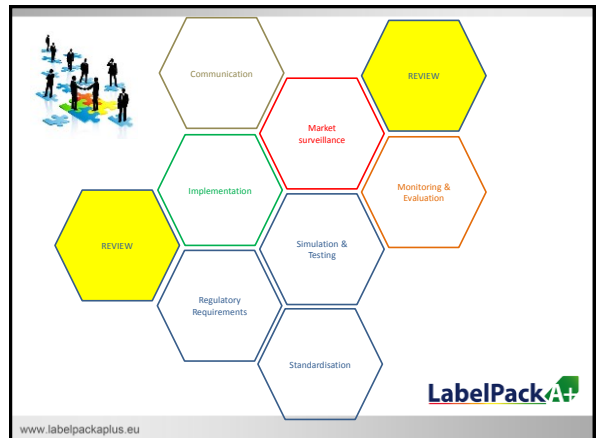
- No later than September 2018
- (a) the appropriateness of setting ecodesign requirements for greenhouse gas emissions related to **refrigerants**;
- (b) on the basis of the measurement methods under development, the level of the ecodesign requirements for **emissions of carbon monoxide, hydrocarbons and particulate matter** that may be introduced;
- (c) the appropriateness of setting stricter ecodesign requirements for the energy efficiency of boiler space heaters and boiler combination heaters, for the **sound power level and for emissions of nitrogen oxides**;
- (d) the appropriateness of setting ecodesign requirements for water heaters specifically designed for using **gaseous or liquid fuels** predominantly produced from biomass;
- (e) the validity of the **conversion coefficient value**;
- (f) the appropriateness of **third party certification**.


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Relevant topics 

- Conversion coefficient value
- Third party certification
- Appropriateness of the package fiches and labels

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 **LabelPack A+**


Interaction between LPA+ and review Lot1 & Lot 2

- Inputs from the project are likely to fit into the first stage of the review process
- Questions are not only regarding improvements on package label → also on the continuation of the package label
- Important to understand scenarios:
 - Impact of having improved package label or no-package label
 - For market, consumers, manufacturers of different products (mainly ST)
 - Requirements connected to each scenario: what actions to take to activate scenario


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Main Documents 


Directives (ELD – EDD)




Implementing Guidelines



Regulations (Lot1 & 2)



Transitional methods



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Implementing Guidelines LabelPack A+

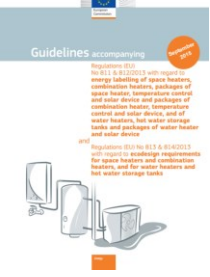
Ongoing update:

- Integrate topics related to solid fuels

Drafting until end of March
↓
Distribution to MS for input
↓
Consultation with stakeholders
↓
Final review and publication

Relevant points:

- ETA water heater
- Clarifications on termosiphons
- FAQs



[Click here to download](#)

Regulation (EU) No 811/2013 with regard to energy labelling of space heaters, combination heaters, packages of space heater, termostatic control and solar device and packages of combination heater, termostatic control and solar device, and of water heaters, hot water storage tanks and packages of water heater and solar device.
 Regulation (EU) No 812/2013 with regard to energy labelling of space heaters, packages of space heater, termostatic control and solar device, and of water heaters, hot water storage tanks and packages of water heater and solar device.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 644905

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ESTESC webmeeting LabelPack A+

27 March 14-16h00

REGISTRATION: [click here](#)
DRAFT AGENDA: [click here](#)

Report from ISO 9806: current status, changes
Andreas Bohren

Draft new EN 12975: Shall include the issues related to CE marking, fire safety and PED directive
Andreas Bohren

Solar Keymark: Update and changes (including new complaint procedure)
Jan Erik Nielsen

SKN Strategy process: early thoughts
Jaime Fernandez

Status update from Energy labelling: Update on future steps
Gerard Van Amerongen

Report from GSCN: current status and update, call for members
Jan Erik Nielsen

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 644905

LabelPack A+



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Annex J Liaison Officer Report TC 312 WG1

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 Hochschule für Technik HTW
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SKN2017 Freiburg i.Br.

**CEN/TC 312/WG1
 Convenor Report**
 A. Bohren

SPF INSTITUT FÜR SOLARTECHNIK

ISO 9806:

- WG Meetings in Chania/October 2017.
- Draft finalized and submitted for 2 weeks revision in CEN/TC 312.
- Comments from Germany only -> included.
 Only editorial comments.
- Submitted with some delay for FV.
- Timeline is difficult to predict.
 (Normal schedule: FV begin 2018).
 We expect clearly ISO9806:2017

SPF INSTITUT FÜR SOLARTECHNIK

EN12975:

Tasks

- Include (= Add Z-Annexes)
 Construction Product Regulation (CPR)
 EcoDesign and Energy Labelling (ECO)
 Pressure Equipment Directive (PED)
- Match the coming ISO9806:2017
- Establish link between transitional documents and standard

SPF INSTITUT FÜR SOLARTECHNIK

EN12975:

Timeline

- Decision in Chania to submit draft more or less «as it is»
 Draft circulated in WG1 (22.01.17), with request for feedback
 3 feedbacks received
 «Difficult» points:
 - Fire safety (help!)
 - Pressure Equipment Directive (help!)

Webmeeting planned March/April, then submit to CEN
 (with a realistic option for a negative answer).

SPF INSTITUT FÜR SOLARTECHNIK

for more details
 ESTESC Webinar 27.March 14:00 to 16:00

Annex K TC 312 Rev ISO 9488



SCF –Revision ISO9488

22nd SKN meeting
Freiburg, Germany
2017-03-07 & 08

Vassiliki DROSOU
Mechanical Energy Engineer, MSc
Head of Solar Thermal Systems Dept. CRES
CENTC312 Secretary, TC180 WG1 member

22nd SKN meeting

SCF –Revision ISO9488

Administrative Info

- ISO9488 ENQ draft preparation / English part was successfully evaluated by SCF (proposal: SCF8 –Revision –ISO9488)
- Vassiliki DROSOU (ISO TC180 WG1 member representing Greek NSB ELOT/NQIS) will be the convenor
- ISO9488 will be revised under ISO TC180 WG1
- As the earlier revision project was cancelled, a new resolution (a Committee Internal Ballot) will be adopted to re-start the project.
- A New Work Item will be registered also in CEN TC312 work programme under CEN TC312 WG1
- ENQ draft revision first in English / If resources available translation is possible but not in this SCF Project

22nd SKN meeting

SCF –Revision ISO9488

Time/work plan

- ISO adoption_Committee Internal Ballot ~ May 2017
- CEN adoption_NWI ~ June 2017
- Make current version available ~ March 2017 (only if allowed to start the work before CIB)
- Submit comments / new definitions together with new proposals until ~ 15 September 2017
- Meeting in Cyprus (provisional date: 20th October 2017 9.00-12.00 am) to work on the draft

Annex L Liaison Officer Report TC 228 and TC 371

vA Consult
Consultancy for renewable energy in the built environment



Update on TC 371, 228

SKN 07.03.2017 Freiburg

Gerard van Amerongen
vAConsult



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vA Consult

EPBD

- Energy Performance Building Directive -

- Broad set of standards describing the energy performance of buildings (2002/91/EC)
- Recast by directive 2010/31/EU
 - CEN Mandate 480, ordering CEN to revise all related standards
 - Many CEN technical committees involved:
 - CEN TC 371 Overarching all relevant standards (TC 312 liaison)
 - CEN TC 228 Heating systems and water based cooling systems in buildings (TC312 liaison)
 -
 - Finalized January 2017 Acceptance of standards

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CEN TC 371

- Energy Performance of Buildings project group -

- Overarching all EPBD system standards (46x)
- FprEN ISO 52000-1
 - Energy performance of buildings - Overarching EPB assessment - Part 1: General framework and procedures
 - Acceptance: Yes (January 2017)
- FprEN ISO / TR 52000-2
 - Overarching EPB assessment - Part 2: Explanation and justification of ISO 52000-1
 - Forecasting voting: ?
- 17 EPBD EN-ISO and 29 EPBD EN standards accepted January 2017**
 - Set of standards not mandatory!
 - But may become mandatory in future

3

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CEN TC 228

- Heating systems and water based cooling systems in buildings -

- Main work done in WG:4
 - Calculation methods and system performance and evaluation
- 15 standards accepted: Heat pumps, *thermal solar*, ..
 - January 2017
- EN 15316-4-3 (ST): 17x Approved and 1x disapproved (DE)
 - Solar thermal and solar PV
 - Methods for annual, monthly and hourly (new) calculations

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FprEN 15316-4-3

- Solar thermal and solar PV -

- Methods:
 - Annual:** Based on EN12976-2 and EN12977-2
 - Only editorial revisions
 - Monthly:** Component testing and system calculations
 - "Fchart" method, commonly applied in member states EPBD and the energy label ("SolCal")
 - Major improvements
 - Hourly:** Component testing and system calculations
 - Limited to solar loop, but linked to FprEN 15316-5 (tank) covering all kinds of systems
 - New addition

6

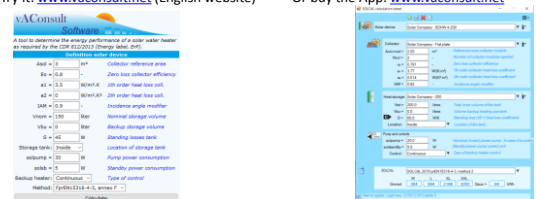
vA Consult

FprEN 15316-4-3

- Link to Energy label (SolCal method) -

- Annex ZA, ZB and ZC & annex F added for harmonization purposes.
 - Faults in current SolCal corrected. New implementation can be used for energylabelling (~+20% better performance)

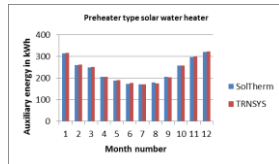
Try it: www.vaconsult.net (English website) Or buy the App: www.vaconsult.net



FprEN 15316-4-3 & FprEN 15316-4 - SCF 6C14.1 Other model project -



- Open source model under development
 - Combining the hourly methods of two EPBD standards
 - Current status:
 - Addition of space heating
 - Validation with TRNSYS
 - Promising results!
- Application potential:
 - EN 12977-2
 - ...



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Closure



Thanks for your attention

Always available for questions and comments
during coffee, lunch and dinner!

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Annex M Liaison Report TC 128

Annex M Liaison Officer Report TC 128

Liaison Report on TC 128 (incl. TC 254) for TC 312, ESTESC, SKN and DIN



TestLab
Solar Thermal
Systems

Dr. Korbinian Kramer
17.01.2017

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Fraunhofer
ISE

TR renewal energy systems for roofs structural connections:

CEN/TC 128/WG 3 CEN/TC 128/WG 3 - Renewable energy systems for roofs
Email of secretary: Secretariat: BSI (United Kingdom)

**CEN-TC128-WG3-N0068 TR renewal energy systems for roofs structural
connections Nov2013**

<http://cen.iso.org/livelink/livelink/open/cenctc128wg3>

Latest document is:

**CEN/TC 128 - Technical Committee Approval FprCEN/TR 16999:2016
(Deadline for Vote: 2016-06-24)**

Was inhaltlich der bereits verteilten Version:

**N0075 WG3 CEN TR 16999:2016 on solar energy systems for roofs May
2014 final draft**



TestLab
Solar Thermal
Systems

Fraunhofer
ISE

Thank you for your attention!



Fraunhofer-Institut für Solare Energiesysteme ISE

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Annex N Liaison Officer Report TC 164 WG2

Suter Consulting
 Communication écrite multilingue • Multilingual written communication
 Kommunikationsschrift mehrsprachig • Mehrsprachige schriftliche Kommunikation

CEN/TC312's Liaison to CEN/TC164
Short Update
 as of February 22nd, 2017

Dr. Jean-Marc Suter
 physicist SIA, Suter Consulting, Berne
 suter@suterconsulting.com

SKN meeting in Freiburg (D) 1

General about CEN/TC164

- CEN/TC164 "Water supply" (cold and hot water systems in buildings, from the entry into the premises)
- CEN/TC 164/WG 2 "Internal systems and components"
 Continuation of the active liaison initiated by my predecessors (Gerard van Amerongen, Jan Erik Nielsen)
 Latest meeting in Cologne on October 6th, 2016
- CEN/TC164/WG10 "Hot water and cold water storage within dwellings"
 New contact suggested by CEN/TC164/WG2: "Could be important in what regards EN 12977-3 and -4"
However, WG10 Convenor denied usefulness of interaction with solar committee ("EN 12897 just been revised")

SKN meeting in Freiburg (D) 2

Revision of EN 806 "Technical Rules Drinking Water Installations"

- New table of contents circulated November 2016
- Inputs expected from all over Europe by March 31st, 2017
- But so far, no input from SKN members, no inputs from CEN/TC312
- I'll do the job alone:
 - Copy of relevant requirements from EN 12976 and EN 12977
 - Considerations from SCF study on Legionella growth prevention in solar heating systems
 - General hygiene requirements from the two Swiss standards for domestic hot water systems SIA 385/1 and SIA 385/2
- My main objectives: compatibility of requirements for solar water heaters with requirements for conventional technologies (→ solar thermal becomes a "quite normal" water heating technology)

SKN meeting in Freiburg (D) 3

SIA 385/1:2017 hygiene rules (excerpt)

Disclaimer: final approval outstanding

Risk level	Building category
Low	Single-family housing, multi-family housing without drinking-water lines maintained at a high temperature Administration Schools without showers Sale, stores, repositories Restaurants, meeting rooms
Medium	Multi-family housing with drinking-water lines maintained at a high temperature Schools with showers Hotels Military barracks, prisons Sport facilities, indoor and outdoor pools
High	Hospitals, housing for elderly and disabled people <i>(not in SIA 385/1)</i>

SKN meeting in Freiburg (D) 4

SIA 385/1:2017 hygiene rules (excerpt)

Disclaimer: final approval outstanding

```

    graph TD
        A[No stagnating drinking water in the whole hot water system] --> B[No microbiologically or toxicologically suspicious material in the whole hot water system]
        B --> C[Stored drinking water volume precisely adjusted to the needs SIA 385/2]
        C --> D1[DHW distribution lines maintained at high temperature]
        C --> D2[No DHW distr. line at high temp. / Store contains drinking water]
        C --> D3[No DHW distr. line at high temp. / Instantaneous water heater, with or without store]
        D1 --> E1[Requirement: 50 °C at each draw-off point after 7 x draw-off lag]
        D2 --> E2[Requirement: 50 °C at each draw-off point after 7 x draw-off lag]
        D3 --> E3[Recommendation: 50 °C at each draw-off point after 7 x draw-off lag]
        E1 --> A1((A))
        E2 --> B1((B))
        E3 --> C1((C))
    
```

SKN meeting in Freiburg (D) 5

SIA 385/1:2017 hygiene rules (excerpt)

Disclaimer: final approval outstanding

```

    graph TD
        A((A)) --> B{Risk level?}
        B -- Medium --> C[Requirements: 60 °C at store outlet *  
• ≥ 55 °C in lines maintained at high temp.]
        B -- Low --> D[Recommendations: 60 °C at store outlet *  
• ≥ 55 °C in lines maintained at high temp.]
        C --> E((OK))
        D --> F{Recommendations followed?}
        F -- YES --> G((OK))
        F -- NO --> H[Requirement: Two thermal disinfections per week, 1 hour at 60 °C]
        H --> I((OK))
    
```

* In the case of instantaneous water heaters: 60 °C at heat exchanger outlet

SKN meeting in Freiburg (D) 6

SIA 385/1 and 385/2 definitions

Useful domestic hot water:

domestic hot water that is drawn off at a draw-off point with the required minimum temperature of 40 °C

Draw-off lag:

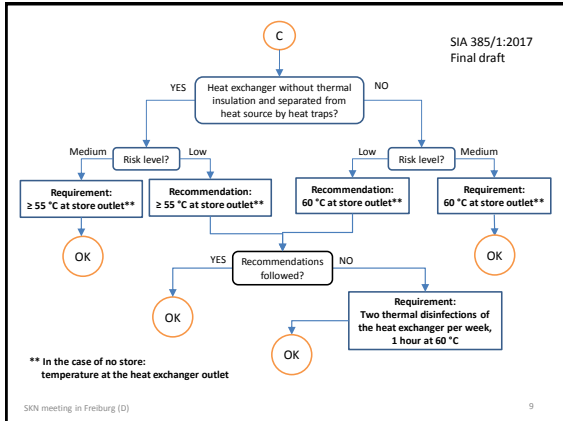
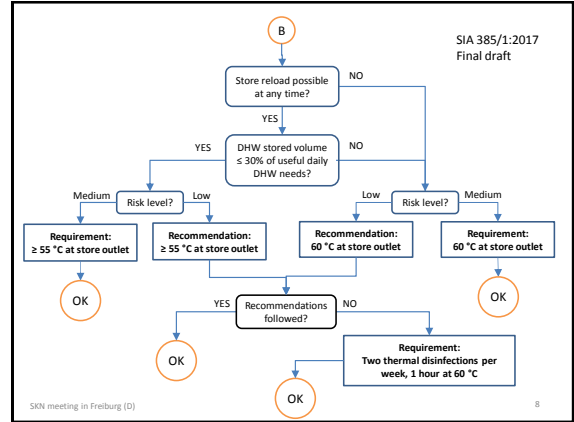
the time interval between the full opening of the DHW draw-off valve and the DHW flow at the temperature of at least 40 °C at the draw-off point

Standard litre:

volume unit to characterise a DHW volume in the following reference conditions: the DHW temperature is 60 °C and the DHW has been heated up from cold water at the temperature of 10 °C

SKN meeting in Freiburg (D)

7



SIA 385/1:2017 hygiene rules (excerpt)

Disclaimer: final approval outstanding

Rules for preheating storage volumes (solar, heat recovery, etc.)

- As a principle, no drinking water in preheating volumes
- If this is not possible or unwanted:
 - Preheating storage volume ≤ daily useful DHW needs
 - At least once a week: thermal disinfection for 1 hour at 60 °C required
 - Preheating volume and continuity volume preferably in one single tank (continuity volume maintained at a high temperature, located above preheating volume)
 - If these two volumes are located in two different tanks, then series-connection of the two tanks.
Solar water heaters: additional device required to transfer heat from the preheating tank to the continuity tank when the first one is warmer than the second one and no DHW is drawn off.

Cold water distribution lines not parallel to hot water and space heating distribution lines (cold water temperature < 25 °C !)

SKN meeting in Freiburg (D)

10

Annex O Family Building ICS Systems

itw Institute for Thermodynamics and Thermal Engineering
Research and Testing Centre for Thermal Solar Systems (TZS) Universität Stuttgart

**22nd Solar Keymark Network meeting
Item 35
Project proposal: ICS system families**


Stephan Fischer
Institute for Thermodynamics and Thermal Engineering (ITW)
Research and Testing Centre for Thermal Solar Systems (TZS)
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Stephan Fischer Item 35, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

itw Institute for Thermodynamics and Thermal Engineering
Research and Testing Centre for Thermal Solar Systems (TZS) Universität Stuttgart

Problem

No system families are possible for ICS systems so far although family member are usually closer to each other than for other systems



Stephan Fischer Item 35, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

itw Institute for Thermodynamics and Thermal Engineering
Research and Testing Centre for Thermal Solar Systems (TZS) Universität Stuttgart

Development of system family procedure for ICS systems

- Solar Keymark Test of 3 different sizes of a ICS system family of 3 different manufacturer
- Development of an extrapolation method to be included in Annex D of the scheme rules
- Drafting the revised Annex D

Financing:

- 15.000 € per manufacturer (including 3 ICS system tests)
- 7.000 € SCF for the development of the extrapolation method and the drafting of Annex D (after all tests are completed)

Stephan Fischer Item 35, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

itw Institute for Thermodynamics and Thermal Engineering
Research and Testing Centre for Thermal Solar Systems (TZS) Universität Stuttgart

Thank you ...



Stephan Fischer Item 35, 22nd Solar Keymark network meeting, Freiburg, 07.-08.03.2017

Annex P Argus

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SKN2017 Freiburg i.Br.

Solar Keymark Argus

A scanner for the Solar Keymark Database

SCF VIII Project

A. Bohren

SPF INSTITUT FÜR SOLARTECHNIK

January and February 2017

~ 345 Modified/New/Removed Solar Keymark Certificates

...and you don't know.

SPF INSTITUT FÜR SOLARTECHNIK

Motivation/Problem:

- 1.) We are all "nosy parkers"..
 But how can we know what our competitors do ?
 What are new/cancelled products of our friends ?
 What was modified ?
 Do we have to challenge something ?
- 2.) Nothing is as constant as change...
 But how can subsidy-authorities be aware of modified/new/void certificates?
- 3.) To err is human....
 But how can you know?
 Maybe your Keymark was modified by mistake?
 Rotten links, Missing datasheets, etc.

SPF INSTITUT FÜR SOLARTECHNIK

Solution: The Weekly Solar Keymark Argus Report

Once a week:

- Scan the complete Solar Keymark database
- Check for new/modified/deleted Keymarks
- Inform subscribers automatically by email, including.
 - > Executive Summary
 - > Detailed report listing the new/modified/deleted
 - > Displaying the changes in modified datasheets
 - > ...

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The Weekly Solar Keymark Database Report

000010 - 28.02.2017

EXECUTIVE SUMMARY

SYSTEM CERTIFICATES	11 NEW	13 MODIFIED	20 REMOVED
COLLECTOR CERTIFICATES	51 NEW	54 MODIFIED	148 REMOVED
STORAGE CERTIFICATES	0 NEW	0 MODIFIED	0 REMOVED
CONTROLLER CERTIFICATES	0 NEW	0 MODIFIED	0 REMOVED
DATASHEETS			

DETAILS

1 - NEW SYSTEM CERTIFICATE
 RegisterNo KIP0001246-00
 Company Alron S.r.l.
 Company Web <http://www.thegreenplanet.solar>
 Product Name TGP 220, 260, 180, 150, 110
 Certifier KWA
 Country IT
 System Datasheet http://www.enfif.org/solarkeymark/Links/Internal_links/KWA/KIP0001246-0.pdf
 Found? NOT FOUND (404)
 Collector RegisterNo

SPF INSTITUT FÜR SOLARTECHNIK

The Weekly Solar Keymark Argus Report will be distributed automatically, starting latest on 01.04.2017.

- Free of charge for everybody until end of June 2017 then paid service < 100 €/year (The «executive summary» will remain foc)
- Subsidy authorities & JEN always foc.
- Free trial subscription is open, Subscribers get a full summary of the first 3 months 2017.

www.spf.ch/Argus.html