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**Draft Project plan for the CEN  
Workshop on "Plastics —  
Recycled plastics —  
Characterization of polyvinyl  
butyral (PVB) recyclates"**

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**Requests to participate in the Workshop  
and/or comments on the project plan are  
to be submitted by 2024-04-08 to  
claudia.laabs@din.de<sup>1</sup>**

Recipients of this project plan are kindly requested to name all patent rights known to them to be relevant to the Workshop and to make available all supporting documents.

**Berlin, 2024-02-29 (Version 1.1)**

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<sup>1</sup> Applications for participating in the Workshop and comments on the project plan that are not received by the deadline do not need to be taken into consideration. Once constituted, the Workshop will decide whether or not to consider the comments received in good time.

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## **Summary**

Laminated glass is obtained by bonding glass layers using a polymeric interlayer. One polymer used as interlayer is polyvinyl butyral (PVB). Up to now, most of the post-consumer PVB material in laminated glass is incinerated or landfilled, and only 9 % are recycled in secondary uses. Recycling of PVB presents several difficulties related with the contents of glass, humidity, mixing of compositions and polymer optical degradation. The objective of the European funded research project SUNRISE is to optimize the recycling of PVB from laminated glass by sorting the incoming material according to the composition and quality of its PVB interlayer. The different sorted grades of the corresponding PVB recyclates can then be used in various applications. In addition to the major use as films and sheets, PVB is for example used in coatings, wash primers, structural adhesives and as a binder for fibers.

Interested stakeholders are the parties involved in the recycling of PVB from laminated glass (recyclers) and the users of the PVB recyclates (producers of laminated glass, photovoltaic modules, coatings with PVB, carpets with PVB backing, etc.).

This Workshop is initiated by the SUNRISE project partners to develop a CWA on “Plastics – Recycled plastics – Characterization of polyvinyl butyral (PVB) recyclates”. The objective of the CWA is to support the use of PVB recyclates by helping the involved parties to agree on the required specifications and promote quality controls and information on properties of PVB recyclates. It defines a method of specifying delivery conditions for PVB recyclates. It will give the most important characteristics and associated test methods for assessing PVB recyclates intended for use in the production of semi-finished/finished products.

The kick-off workshop is planned for 12 April 2024 and the document is envisaged to be published end of 2024. It is foreseen to propose the CWA as new work item proposal (EN or CEN/TS) to CEN/TC 249 (to be drafted in WG 11).

## **1 Status of the project plan**

**Draft project plan** for public commenting (Version 1.1)

This draft project plan is intended to inform the public of a new Workshop. Any interested party can take part in this Workshop and/or comment on this draft project plan. Please send any requests to participate or comments by e-mail to [claudia.laabs@din.de](mailto:claudia.laabs@din.de).

All those who have applied for participation or have commented on the project plan by the deadline will be invited to the kick-off meeting of the Workshop on 2024-04-12.

## 2 Workshop proposer and Workshop participants

### 2.1 Workshop proposer

Person or organisation	Short description and interest in the subject
Angélica Pérez Manso, L'UREDERRA, Fundacion para el desarrollo tecnologico y social, SPAIN	L'UREDERRA is a technological center that carries out research and applied technological development activities in the fields of nanotechnology, new materials and advanced environment at the service of companies and economical agents. Lurederra has been working in PVB recycling since 15 years coordinating several European projects related with the optimisation of mechano-chemical recycling methods of this polymer. PVB recycling is still limited. Lurederra main interest is to achieve a good quality PVB stream which can be used again in high quality applications such as lamination market and ensure that the quality of the recycled streams for this and other applications match technical and economically the requirements of the end-use sector, therefore promoting the introduction of PVB recycled materials in the market.

### 2.2 Other potential participants

This CWA will be developed in a Workshop (temporary body) that is open to any interested party. The participation of other experts would be helpful and is desired. It is recommended that:

- recyclers of PVB from laminated glass
- recyclers of laminated glass (from windshields, construction)
- users of PVB recyclates (producers of laminated glass, photovoltaic modules, coatings with PVB, carpets with PVB backing, etc.)
- PVB manufacturers

take part in the development of this CWA.

### 2.3 Participants at the kick-off meeting

The following persons or organisations already signed up to the kick-off meeting prior to the publication of the draft project plan.

Person	Organisation
<b>Workshop proposer</b> Angélica Pérez Manso	<b>Workshop proposer</b> L'UREDERRA, Fundacion para el desarrollo tecnologico y social, SPAIN
Dr Maxim Guc	IREC – Fundació Institut de Recerca en l'Energiade Catalunya, SPAIN
Professor Claudio Gerbaldi	Politecnico di Torino, ITALY
Dr Alessandro Piovano	Politecnico di Torino, ITALY

Dr Hamideh Darjazi	Politecnico di Torino, ITALY
Dr Matteo Gastaldi	Politecnico di Torino, ITALY
<b>Workshop secretariat</b> Claudia Laabs	<b>Workshop secretariat</b> DIN German Institute for Standardization, GERMANY

## 2.4 Registered Workshop participants

The following persons or organisations have registered as Workshop participants at the kick-off meeting and will actively participate in the development of the CWA.

Person	Organisation
Workshop Chair	Workshop Chair
Workshop Vice-Chair	Workshop Vice-Chair
Workshop secretariat	Workshop secretariat

## 3 Workshop objectives and scope

### 3.1 Background

Laminated glass is obtained by bonding glass layers using a polymeric interlayer. One polymer used as interlayer is polyvinyl butyral (PVB). Up to now, most of the post-consumer PVB material in laminated glass is incinerated or landfilled, and only 9 % are recycled in secondary uses. Recycling of PVB presents several difficulties related with the contents of glass, humidity, mixing of compositions and polymer optical degradation. The objective of the European funded research project SUNRISE is to optimize the recycling of PVB from laminated glass by sorting the incoming material according to the composition and quality of its PVB interlayer. The different sorted grades of the corresponding PVB recyclates can then be used in various applications. In addition to the major use as films and sheets, PVB is for example used in coatings, wash primers, structural adhesives and as a binder for fibers.

This Workshop is initiated by the SUNRISE project partners to develop a CWA on “Plastics – Recycled plastics – Characterization of polyvinyl butyral (PVB) recyclates”. The objective of the CWA is to support the use of PVB recyclates by helping the involved parties to agree on the required specifications and promote quality controls and information on properties of PVB recyclates. It defines a method of specifying delivery conditions for PVB recyclates. It will give the most important characteristics and associated test methods for assessing PVB recyclates intended for use in the production of semi-finished/finished products.

### 3.2 Scope

The planned CEN Workshop Agreement (CWA) defines a method of specifying delivery conditions for polyvinyl butyral (PVB) recyclates.

The planned CWA gives the most important characteristics and associated test methods for assessing PVB recyclates intended for use in the production of semi-finished/finished products.

The planned CWA is intended to support parties involved in the use of PVB obtained by mechanical or mechano-chemical recycling to agree on specifications for specific and generic applications.

The planned CWA is applicable without prejudice to any existing legislation.

The planned CWA does not cover the characterization of plastic waste, which is covered by EN 15347, neither traceability topics which are covered by EN 15343.

### **3.3 Related activities**

The subject of the planned CWA is not at present the subject of a standard. However, there are committees and standards that deal with related subjects and thus need to be taken into account - and involved, where necessary - during this Workshop:

- CEN/TC 249 “Plastics” and its working group CEN/TC 249/WG 11 “Plastics recycling”
  - with standards family EN 1534x, *Plastics — Recycled plastics — Characterization of [xxx = name of plastic] recyclates*

## **4 Workshop programme**

### **4.1 General**

The kick-off meeting is planned to take place on 2024-04-12 in Berlin. A draft for public commenting will be published for 30 days.

A total of four Workshop meetings (kick-off meeting and Workshop meetings) and web conferences will be held, during which the content of the CWA will be presented, discussed and approved.

The CWA will be drawn up in English (language of meetings, minutes, etc.). The CWA will be written in English.

### **4.2 Workshop schedule**

The Workshop schedule is given in Table 1.

Table 1: Workshop schedule (preliminary)

CEN/CENELEC Workshop	M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12
<b>Initiation</b>												
1. Proposal form submission and TC response												
2. Project plan development												
3. Open commenting period on draft project plan (mandatory)												
<b>Operation</b>												
4. Kick-off meeting												
5. CWA(s) development												
6. Open commenting period on draft CWA(s) (optional)												
7. CWA(s) finalised and approved by Workshop participants												
<b>Publication</b>												
8. CWA(s) publication												
<b>Dissemination (see 7)</b>												
<b>Milestones</b>				K		V		V		M/A		P D

- K** Kick-off
- M** Workshop meeting
- V** Virtual Workshop meeting
- A** Adoption of CWA
- P** Publication of CWA
- D** Online distribution of CWA

## 5 Resource planning

All costs related to the participation of interested parties in the Workshop's activities have to be borne by themselves.

The Workshop will be financed within the framework of the SUNRISE research project.

## 6 Workshop structure and rules of cooperation

### 6.1 Participation in the Workshop

The Workshop will be constituted during the course of the kick-off meeting. By approving this project plan, the interested parties declare their willingness to participate in the Workshop and will be formally named as Workshop participants, with the associated rights and duties. Participants at the kick-off meeting who do not approve the project plan are not given the status of a Workshop participant and are thus excluded from further decisions made during the kick-off meeting and from any other decisions regarding the Workshop.

As a rule, the request to participate in the Workshop is closed once it is constituted. The current Workshop participants shall decide whether any additional members will be accepted or not.

Any new participant in the Workshop at a later date is decided on by the participants making up the Workshop at that time. It is particularly important to consider these aspects:

- a. expansion would be conducive to shortening the duration of the Workshop or to avoiding or averting an impending delay in the planned duration of the Workshop;
- b. the expansion would not result in the Workshop taking longer to complete;
- c. the new Workshop participant would not address any new or complementary issues beyond the scope defined and approved in the project plan;
- d. the new Workshop participant would bring complementary expertise into the Workshop in order to incorporate the latest scientific findings and state-of-the-art knowledge;
- e. the new Workshop participant would actively participate in the drafting of the manuscript by submitting concrete, not abstract, proposals and contributions;
- f. the new Workshop participant would ensure wider application of the CWA.

All Workshop participants who voted for the publication of the CWA or its draft will be named as authors in the European Foreword, including the organisations which they represent. All Workshop participants who voted against the publication of the CWA, or who have abstained, will not be named in the European Foreword.

### 6.2 Workshop responsibilities

The Workshop Chair is responsible for content management and any decision-making and voting procedures. The Workshop Chair is supported by the Workshop Vice-Chair and the responsible Workshop secretariat, whereby the Workshop secretariat will always remain neutral regarding the content of the CWA(s). Furthermore, the Workshop secretariat shall ensure that CEN-CENELEC's rules of procedure, rules of presentation, and the principles governing the publication of CWA(s) have been observed. Should a Workshop Chair no longer be able to carry out her/his duties, the Workshop secretariat shall initiate the election of a new Workshop Chair. The list below covers the main tasks of the Workshop Chair. It is not intended to be exhaustive.

- Content related contact point for the Workshop
- Presides at Workshop meetings
- Ensures that the development of the CWA respects the principles and content of the adopted project plan
- Manages the consensus building process, decides when the Workshop participants have reached agreement on the final CWA, on the basis of the comments received
- Ensures due information exchange with the Workshop secretariat
- Represents the Workshop and its results to exterior

The Workshop secretariat, provided by a CEN/CENELEC national member, is responsible for organising and leading the kick-off meeting, in consultation with the Workshop proposer. Further Workshop meetings and/or web conferences shall be organised by the Workshop secretariat in consultation with the Workshop Chair. The list below covers the main tasks of the Workshop secretariat. It is not intended to be exhaustive.

- Administrative and organisational contact point for the Workshop



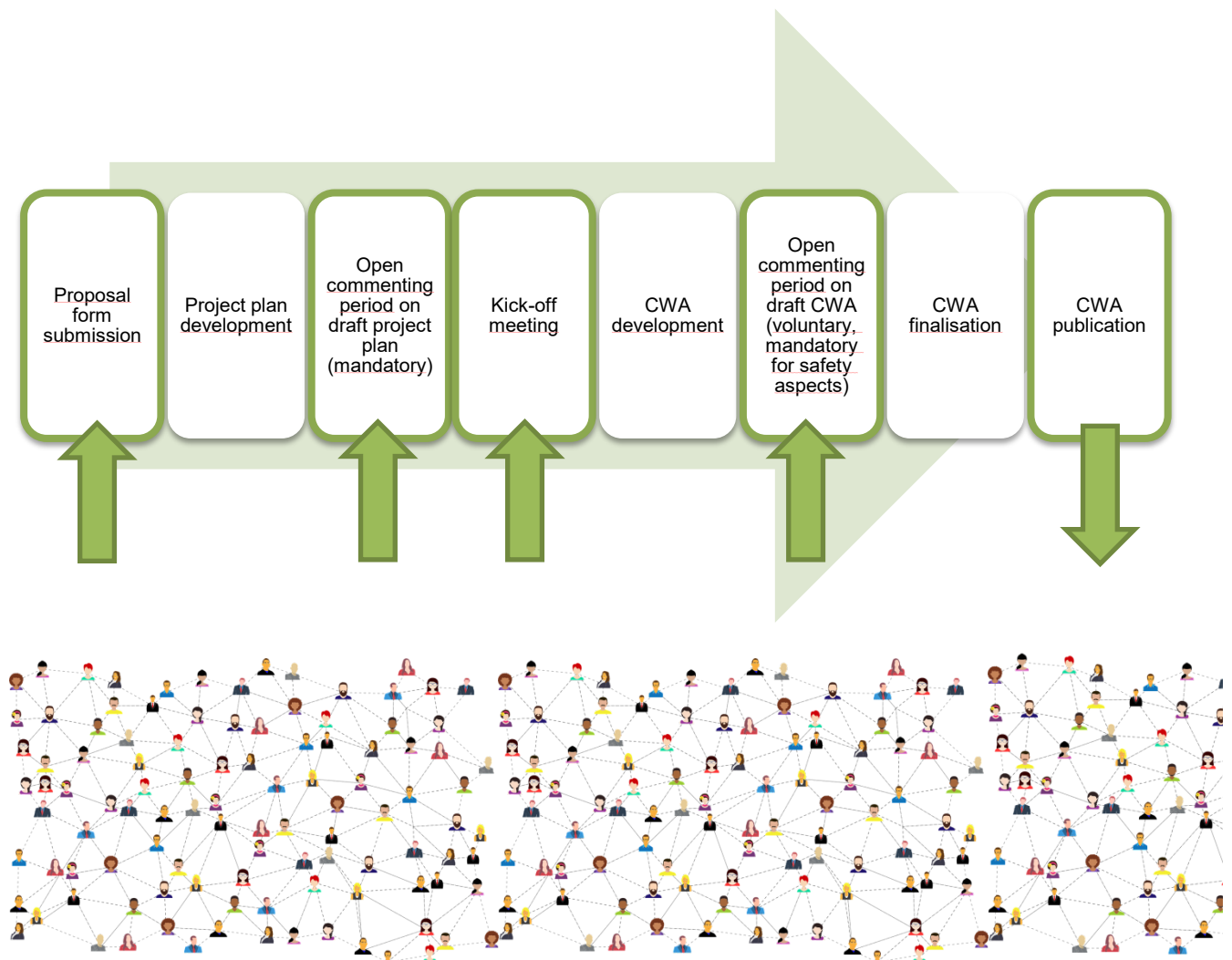
- Ensures that the development of the CWA respects the principles and content of the adopted project plan and of the requirements of the CEN-CENELEC Guide 29
- Formally registers Workshop participants and maintains record of participating organisations and individuals
- Offers infrastructure and manage documents and their distribution through an electronic platform
- Prepares agenda and distribute information on meetings and meeting minutes as well as follow-up actions of the Workshop
- Initiates and manage CWA approval process upon decision by the Workshop Chair
- Interface with CEN-CENELEC Management Centre (CCMC) and Workshop Chair regarding strategic directions, problems arising, and external relationships
- Advises on CEN-CENELEC rules and bring any major problems encountered (if any) in the development of the CWA to the attention of CEN-CENELEC Management Centre (CCMC)
- Administrates the connection with relevant CEN or CENELEC/TCs

### 6.3 Decision making process

Each Workshop participant is entitled to vote and has one vote. If an organisation sends several experts to the Workshop, that organisation has only one vote, regardless of how many Workshop participants it sends. Transferring voting rights to other Workshop participants is not permitted. During voting procedures, decisions are passed by simple majority; abstentions do not count.

If Workshop participants cannot be present in the meetings when the CWA or its draft is adopted, an alternative means of including them in the voting procedure shall be used.

## 7 Dissemination and participation strategy



### Proposal form submission

The Workshop proposal will be disseminated to the following relevant stakeholders and bodies for consultation:

- CEN/TC 249 “Plastics”
- CEN/TC 249/WG 11 “Plastics recycling”.
- SUNRISE project partners
- Participants of SUNRISE Stakeholder engagement workshop

### Open commenting period on draft project plan

The project plan will be disseminated to the following relevant stakeholders and bodies for commenting:

- CEN/TC 249 “Plastics”
- CEN/TC 249/WG 11 “Plastics recycling”.
- SUNRISE project partners
- Participants of SUNRISE Stakeholder engagement workshop

In addition to the CCMC website, the project plan and the date of the kick-off meeting will be advertised on <https://sunrise-project.eu/#> to raise awareness. Interested parties are requested to contribute either through commenting of the project plan (short term) or through Workshop participation (long term).

### Open commenting period on draft CWA

The draft CWA will be disseminated to the following relevant stakeholders and bodies for commenting:

- CEN/TC 249 “Plastics”
- CEN/TC 249/WG 11 “Plastics recycling”.
- SUNRISE project partners
- Participants of SUNRISE Stakeholder engagement workshop

In addition to the CCMC website, the draft CWA will be advertised on <https://sunrise-project.eu/#> to raise awareness. Interested parties are requested to contribute through commenting of the draft CWA (short term).

### CWA publication

The final CWA will be disseminated to the following relevant stakeholders and bodies:

- CEN/TC 249 “Plastics”
- CEN/TC 249/WG 11 “Plastics recycling”.
- SUNRISE project partners
- Participants of SUNRISE Stakeholder engagement workshop

In addition to the CCMC website, the final CWA will be advertised on:

- social media, such as
  - LinkedIn
  - X (formerly Twitter)
- SUNRISE project website (<https://sunrise-project.eu/#>)

## 8 Contacts

- Workshop Chair:

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- Workshop Vice-Chair:

N.N.

- Workshop Secretariat:  
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- Workshop proposer  
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