
A-Z – Guideline of the International Committee for Certification of Adhesive Bonding Processes - ICCAP -

Revision status: No. 4, June 2nd, 2026

Preface

The A-Z – Guideline is a compilation of the decisions of the International Committee for Certification of Adhesive Bonding Processes (ICCAP).

It supplements the procedure for obtaining a certificate in accordance with ISO 21368 and contains additional specifications, transitional provisions, restrictions and interpretations of the ISO 21368 standard and the applicable standards and regulations.

When user companies are certified according to ISO 21368 by the certification bodies participating in the ICCAP, the application of the A-Z – Guideline is a mandatory prerequisite for the user companies to be certified and the certification bodies.

The A-Z – Guideline is maintained by the ICCAP office and kept up to date.
Applications for inclusion must be submitted in writing to the ICCAP Secretariat via the certification bodies for forwarding to the ICCAP.

The A-Z – Guideline is published in the ICCAP online register. Only the version of the A-Z – Guideline published in the online register is binding.

Contents

Chapter	page
1. Revisions	2
2. Normative references	2
3. Standard corrections	2
4. Areas of application	2
5. General	4
6. Requirements for companies: Personnel requirements	4
7. Requirements for companies: adhesive bonding processes	5
8. Requirements for companies: Technical equipment/infrastructure	6
9. Procedure of certification in accordance with ISO 21368	6

1. Revisions

Changes from the last revision are underlined. When compiling this A-Z – Guideline, the date of compilation and all changes are indicated by the revision number. The revision numbers correspond to the ICCAP-meetings.

Revision	Meeting	Date
1	1st meeting	29 October 2024
-	2nd meeting	29 April 2025
-	3rd meeting	10 December 2025
<u>4</u>	<u>4th meeting</u>	<u>2 June 2026</u>

2. Normative references

Applicable documents

(Revision 1)

The latest version of ISO 21368, including Annexes A, C and I, as well as this A-Z – Guideline, are binding for certification.

3. Standard corrections

Sections 8.2.4, 8.4.6: Documentation of adhesive bonding for classes S1 and S2

(Revision 1)

The requirement for documentation of adhesive bonding is described redundantly in sections 8.2.4 and 8.4.6; in section 8.4.6, requirements within the section are also repeated. The requirements in section 8.2.4 apply for certification.

4. Areas of application

Insulating glass panes

(Revision 1)

ISO 21368 applies to the manufacture of insulating glass panes using adhesives and sealants.

Laminated safety glass

(Revision 1)

The manufacture of laminated safety glass (e.g. glass composite with PVB film) is not covered by the provisions of ISO 21368. Further bonding/sealing of laminated safety glass is subject to the standard.

Vulcanisation

(Revision 1)

The manufacture of vulcanised products is not covered by ISO 21368.

Composite materials

(Revision 1)

ISO 21368 applies to the manufacture of composite materials (e.g. sandwich elements) using adhesives and sealants. The manufacture of plywood is not covered by ISO 21368.

Composite

(Revision 1)

The manufacture of FRP (Fibre-Reinforced Plastics) is not covered by ISO 21368.

The bonding of Fibre-Reinforced Plastics is subject to ISO 21368.

If, during the manufacture of FRP, a bonded attachment/ add-on element is overlaminated so that this additional lamination would also meet all the requirements of the joint on its own (e.g. in terms of strength and long-term stability), this is considered to be part of the laminate. The fibre/covering layers used for this purpose must be able to bear all forces. If not all forces can be transferred by the covering layers, this joint is considered bonding and is subject to ISO 21368.

Screw retention

(Revision 4)

Screw retention of a high or medium risk class (e.g. risk classes M and H according to the EN 17976 screw standard) must be designed in such a way that they fulfil their function completely and permanently under load without additional securing by means of screw locking using adhesives (e.g. anaerobic or microencapsulated).

If a screw locking adhesive is also used for these adhesive bonds to minimise risk, ISO 21368 does not apply.

If the use of a screw locking adhesive has an additional function, e.g. as

- an anti-rotation protection, if this is not fully guaranteed by the preload force (e.g. in the case of exceptional loads, polymer layers in the screw connection),
- for sealing against media,
- for securing the positioning of a set screw,

the ISO 21368 applies.

5. General

No keywords at present

6. Requirements for companies: Personnel requirements

Personnel changes Adhesive Bonding Coordinators (ABC / retirement from position) (Revision 1)

If the requirements of ISO 21368 are no longer met, the responsible certification body must be informed immediately. Within two weeks, the company must submit a concept for ensuring adhesive monitoring in accordance with the standard.

Temporary assignment of employees (Revision 1)

Temporary staff (for adhesive bonding work) are subject to the same qualification requirements as permanent staff.

Qualification of ABC for S1 and S2 (Revision 1)

For a transitional period, persons who are still in the qualification phase may also be designated as ABC. If, at the time of the audit, only a registration for a qualification has been submitted, the ABC must at least be able to demonstrate qualification at level 2 (if ABC level 1 is required) or level 3 (if ABC level 2 is required).

In this case, the period of validity of the certificate must be limited to this transitional period until the ABC has obtained the qualification.

Qualifications of adhesive supervision personnel and executing personnel (Revision 1)

Proof of competence in accordance with ISO 21368, Chapter 5.6, is mandatory for the qualification of adhesive personnel (ABC, ABO).

Recognition of the “DVS-Klebtechnologen” as ABC Level 1 (Revision 1)

A „DVS-Klebtechnologe“ (Adhesive Bonding Technologist) in accordance with DVS 3304 is considered a comparable qualification for ABC Level 1, without the competence in the process step/scope of product design (construction) for bonded components of class S1. If additional extended proof of competence is available for this process step, the „DVS-Klebtechnologe“ can be fully recognised as Level 1.

Further training of adhesive bonding personnel (Revision 1)

As a guideline for continuous training, operational personnel should be able to provide evidence of 4 to 8 hours and supervisory personnel 8 to 16 hours. In both cases, the duration of the training must be based on the complexity of the tasks and responsibilities of the personnel in the bonding process or the scope of application. The date, duration, content and instructor must be documented.

Deputies situation of the ABC

(Revision 4)

In principle, a deputy with equal authority to the rABC must be appointed. If the rABC or an ABC with equal rights does not need to be available at all times, a deputy with a lower level of qualification may be appointed. This non-equivalent deputy (deputy with not equal rights) must ensure that no decisions regarding adhesive bonding processes are made during the rABC's absence. This deputy may only make decisions in line with their level of qualification.

When appointing an external rABC, at least one internal deputy must be appointed.

7. Requirements for companies: adhesive bonding processes

Bonding without safety requirements

(Revision 1)

Adhesive bonds without safety requirements (class S4) must be classified in a traceable manner. There are no further requirements for these S4 adhesive bonds in the standard or the certification procedure.

Evaluation of the examination of work samples of classes S1 and S2

(Revision 1)

The evaluation of work samples and their test results may only be carried out by personnel qualified in adhesive bonding. The personnel responsible for testing work samples must be designated and instructed by the ABC. The evaluation must be carried out by an ABC Level 1 or 2.

Documentation of adhesive manufacturing for classes S1 and S2

(Revision 1)

The specifications in Chapter 8.2.4 of the standard (see Chapter 3 of the A-Z – Guideline / Standard corrections) apply. In addition, an ABC must ensure that the documentation is checked for plausibility (four-eyes principle in accordance with Chapter 8.4.6 of the standard).

Acceptance of validation of product design acc. DIN 2304-1

(Revision 4)

If the fit, form and function have not been changed, designs of projects validated according to DIN 2304-1 are also considered to be validated according to EN ISO 21368.

8. Requirements for companies: Technical equipment/infrastructure

Laboratory areas

(Revision 1)

Laboratories that perform tests for verification, validation of design and process capability, or continuous process control must provide appropriate proof of competence.

Proof of competence may be given by an accreditation of a laboratory's tests in accordance with ISO/IEC 17025; alternatively, a certification body may assess the laboratory against the criteria listed below and certify its competence in accordance with this specification.

If no appropriate official proof of competence (e.g. accreditation in accordance with DIN ISO IEC 17025) is available, the user company must check the following criteria when commissioning a company or laboratory to provide verification, validate the design and process capability or carry out continuous process control for adhesives in classes S1 and S2:

- Personnel (organizational structure, responsibilities of the testing personnel/laboratory, proof of qualification of operating personnel for testing machines and bonding technology (e.g. for in-house sample preparation),
- Testing machines (monitoring, suitability)
- Processes (order processing procedures, checks in accordance with internal and external guidelines, reporting, data traceability,
- spatial conditions (general conditions, cleanliness, climate, access restrictions),
- Handling of products provided.

These requirements also apply if the manufacturing company carries out the tests for verification, validation of the design and process capability or for continuous process control internally.

9. Procedure of certification in accordance with ISO 21368

Validity of the certificate

(Revision 1)

The certificate is linked to the user's place of business, the scope of application (class and code), any restrictions on approval and the persons responsible for monitoring the adhesive. The validity of the certificate is limited to a maximum of three years, but may be issued for a shorter period if justified.

Within the certified class (S1, S2, S3), the scope of application may be restricted to specific assemblies or components.

Extension of validity period

(Revision 1)

In principle, it is not possible to extend the period of validity of a certificate. In exceptional cases, if it is not possible to agree on a date in good time, a certificate may be extended by a maximum of 3 months by the certification bodies without an operational audit.

The company must be informed of this. The new expiry date of the certificate must be noted in the Internet register.

Monitoring

(Revision 1)

The certification body shall monitor the company within the period of validity of the certificate. One monitoring (surveillance) audit by the certification body is mandatory within the period of validity of the certificate. Additional monitoring shall be carried out in justified cases.

Example of bonding work during auditing

(Revision 1)

For initial and recertifications, an exemplary bonding of the highest class applied for must be produced by the company during the audit.

The bonding must be typical of the bonding normally carried out in production. If there are several typical types of bonding (e.g. elastic 1-component thick-film bonding and bonding with high-modulus 2-component systems), the certification body must be consulted in good time before the audit begins to determine which types of bonding will be assessed during the audit. In any case, complete process documentation must be available for each adhesive system.

If, at the time of the audit, there is no appropriate bonding of the highest class applied for in regular production, an exemplary bonding process must be prepared which, in terms of the type and scope of documentation, is based on typical bonding of the highest class applied for. This must be agreed with the certification body in good time before the audit begins.

Internet register

(Revision 1)

The certification bodies are obliged to maintain the data of the certificates issued in the Internet register (Online Register www.iso21368.com).

Rectifying of deviations

(Revision 1)

During the certification, certificates may be issued for a limited period of time in order to give companies the opportunity to obtain a certificate despite non-critical deviations. These non-critical deviations must then be implemented by the defined date. If the deviations are found to be acceptable, the certificate can then be extended to its full duration period.

During surveillance, non-critical deviations must also be corrected by the companies. If the defined time for correcting these deviations is exceeded, the certification body is entitled to suspend the certificates or shorten the validity period of the certificate.

Changes during the period of validity

(Revision 1)

The certification body must be informed immediately of any changes to the address of the company, the adhesive supervisors, the approved adhesive areas and any intended changes or additions to the class of the certificate or the code table.

In the event of changes to the adhesive supervision personnel, information must be provided at least about changes to the rABC and the equally authorized Deputy. If only a non-equally authorized Deputy has been appointed, the certification body must be informed of any changes concerning this deputy.

The rABC must always maintain an up-to-date list of all ABCs, including their qualifications and scope of activities.

Withdrawal of certification

(Revision 1)

The certification body shall withdraw a certificate if

- there are serious deficiencies in the performance of adhesive bonding work in accordance with ISO 21368 that are not remedied immediately;
- the adhesive bonding coordinator organization is no longer compliant with the standard;
- other requirements in accordance with ISO 21368 are no longer met;
- the period of validity has expired;
- the user company waives the certificate.

Entry of ABC in the online register and on the certificate

(Revision 1)

In addition to the rABC, all equal authorized Deputies, but at least the Deputies required by the standard, are listed in the online register and on the certificate.

Coexistence phase of standards DIN 2304-1 and EN ISO 21368

(Revision 1, 4)

~~Both standards, and therefore the respective certificates, are to be regarded as equivalent during the three-year coexistence period. DIN 2304-1 will be withdrawn at the end of August 2026. For the duration of the coexistence period, certificates issued in accordance with DIN 2304-1 and ISO 21368 are considered equivalent.~~

The coexistence phase of the two standards DIN 2304-1 and EN ISO 21368 has ended prematurely, as DIN 2304-1 has been withdrawn. All certificates issued in accordance with DIN 2304-1 will be converted into certificates in accordance with EN ISO 21368 at the next audit by the certification bodies. Certificates issued in accordance with DIN 2304-1 remain valid until the transition to the new standard, but only until the end of August 2027 at the latest.

During this phase, certificates issued in accordance with both standards are considered equivalent.