

Guideline of the Railway Vehicles Coordination Committee (Draft Guideline DVS 1619)

Procedure for the certification of welding manufacturers for welding railway
vehicles and components according to DIN EN 15085-2

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1 General

This guideline was prepared by the Railway Vehicles Coordination Committee in collaboration with DVS Working Group A7, "Welding in the Construction of Railway Vehicles".

It describes the process of the certification of welding manufacturers for the welding of railway vehicles and components according to DIN EN 15085-2 "Railway applications – Welding of railway vehicles and components – Part 2: Quality requirements and certification of welding manufacturer" and serves to define a uniform procedure. It is binding for manufacturer certification bodies and manufacturers and also includes supplementary information on the standard.

The Federal Railway Authority (EBA) is the national safety authority responsible for railway traffic in Germany. It has published an administrative directive for the application of joining technologies in the acceptance of railway vehicles and for the supervision of railway vehicles within the EBA's area of responsibility (*Verwaltungsrichtlinie für die Anwendung von Fügetechniken bei der Abnahme der Schienenfahrzeuge und die Aufsicht über die Schienenfahrzeuge im Zuständigkeitsbereich des EBA*). The regulations included in that EBA directive have been taken into account for the present Guideline. According to the EBA directive, the Coordination Committee is the responsible steering body to ensure a uniform procedure of the manufacturer certification bodies.

The responsibility on the level of the non-federal railways rests with the relevant authorities of the federal states.

The certification of welding manufacturers is based on generally accepted rules of technology. For the welding of railway vehicles and components, these generally accepted rules of technology are embodied in:

- the DIN EN 15085-1 to DIN EN 15085-5 series of standards, and
- additionally applicable reference standards.

Moreover, the recommendations of the A-Z compilation of the Railway Vehicles Coordination Committee must be taken into account.

Welding manufacturers wanting to undertake welding work in new building, including finishing welding, or in repair must provide evidence of their qualification according to DIN EN 15085-2. Manufacturers who do not perform any welding work themselves but

- design, or
- purchase & assemble, or
- purchase & resell

welded components and subassemblies require a certificate for the certification level CL 4.

Such qualification is considered to have been demonstrated if a certificate has been issued by a manufacturer certification body. A welding manufacturer having several welding facilities requires a separate certificate for each facility.

The certificate becomes invalid when the prerequisites upon which it was granted, no longer exist.

Welded subassemblies of railway vehicles and components that have been manufactured or repaired by welding manufacturers not in possession of the required certificate are not considered to comply with the standards.

2 References to standards, regulations and guidelines

This Guideline incorporates stipulations from other publications by dated or undated references. The relevant publications of such normative references in the text are listed below.

In case of dated references, subsequent amendments or revisions of these publications are only included in this Guideline if they have been formally incorporated by an amendment or a revision.

For undated references, always the latest edition of the referenced document applies.

A-Z compilation of the Railway Vehicles Coordination Committee	A-Z Compilation on the DIN EN 15085
DIN 27201-6	State of railway vehicles – Basic principles and production technology – Part 6: Welding
DIN EN 1418	Welding personnel – Approval testing of welding operators for fusion welding and resistance weld setters for fully mechanized and automatic welding of metallic materials
DIN EN 15085-1	Railway applications – Welding of railway vehicles and components – Part 1: General
DIN EN 15085-2	Railway applications – Welding of railway vehicles and components – Part 2: Quality requirements and certification of welding manufacturer
DIN EN 15085-3	Railway applications – Welding of railway vehicles and components – Part 3: Design requirements
DIN EN 15085-4	Railway applications – Welding of railway vehicles and components – Part 4: Production requirements
DIN EN 15085-5	Railway applications – Welding of railway vehicles and components – Part 5: Inspection, testing and documentation
DIN EN 287-1	Qualification test of welders – Fusion welding – Part 1: Steels
DIN EN 473	Non destructive testing – Qualification and certification of NDT personnel – General principles
DIN EN ISO 14555	Welding – Arc stud welding of metallic materials
DIN EN ISO 14731	Welding coordination – Tasks and responsibilities
DIN EN ISO 15607	Specification and qualification of welding procedures for metallic materials – General rules

DIN EN ISO 15609-1	Specification and qualification of welding procedures for metallic materials – Welding procedure specification - Part 1: Arc welding
DIN EN ISO 15613	Specification and qualification of welding procedures for metallic materials – Qualification based on pre-production welding test
DIN EN ISO 15614-1	Specification and qualification of welding procedures for metallic materials – Welding procedure test – Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys
DIN EN ISO 15614-12	Specification and qualification of welding procedures for metallic materials – Welding procedure test – Part 12: Spot, seam and projection welding
DIN EN ISO 15614-13	Specification and qualification of welding procedures for metallic materials - Welding procedure test – Part 13: Resistance but and flash welding
DIN EN ISO 15614-2	Specification and qualification of welding procedures for metallic materials - Welding procedure test – Part 2: Arc welding of aluminium and its alloys
DIN EN ISO 15614-3	Specification and qualification of welding procedures for metallic materials - Welding procedure test – Part 3: Fusion and pressure welding of non-alloyed and low-alloyed cast irons
DIN EN ISO 15614-6	Specification and qualification of welding procedures for metallic materials - Welding procedure test – Part 6: Arc and gas welding of copper and its alloys
DIN EN ISO 15614-7	Specification and qualification of welding procedures for metallic materials – Welding procedure test – Part 7: Overlay welding of steel
DIN EN ISO 15620	Welding – Friction welding of metallic materials
DIN EN ISO 3834-2	Quality requirements for fusion welding of metallic materials – Part 2: Comprehensive quality requirements
DIN EN ISO 3834-3	Quality requirements for fusion welding of metallic materials – Part 3: Standard quality requirements
DIN EN ISO 3834-4	Quality requirements for fusion welding of metallic materials – Part 4: Elementary quality requirements
DIN EN ISO 4063	Welding and allied processes – Nomenclature of processes and reference numbers
DIN EN ISO 9606-2	Qualification test of welders – Fusion welding – Part 2: Aluminium and aluminium alloys

DIN EN ISO 9606-3	Approval testing of welders – Fusion welding – Part 3: Copper and copper alloys
CEN ISO/TR 15608 (DIN technical report)	Welding – Guidelines for a metallic materials grouping system
DVS 1608 code of practice	Design and fatigue testing of welded joints of aluminium and aluminium alloys in the construction of railway vehicles (in preparation)
DVS 1610 code of practice	General guidelines for planning the welding production in the construction of railway vehicles
DVS 1617 code of practice	Quality requirements on subcontractors for welding railway vehicles and components
DVS 1620 code of practice	Inspection and testing of welding in the construction of railway vehicles
DVS 1621 code of practice	Production weld tests in the construction of railway vehicles
DVS 1623 code of practice	Notes on implementing EN 15085 – Comparison with DIN 6700
DVS 1109 guideline	Welding coordinators in the construction of railway vehicles
DVS 1612 guideline	Design and fatigue testing of welded steel joints in the construction of railway vehicles
DVS 1614 guideline	Straightening in the construction of railway vehicles

3 Classification of the certificates

The certificates are classified based on the certification levels (CL) defined in DIN EN 15085-2.

These certification levels depend on the weld performance class (CP) of the welded joints and the safety relevance of the components and subassemblies. According to DIN EN 15085-3, the certification levels should be specified in the relevant drawing. In the absence of such specification, the certification level according to DIN EN 15085-2 must be determined prior to submitting the application. For this purpose, the national safety authority (which in Germany is the EBA) and the customer should be consulted as appropriate.

The certification levels that are included in the level for which the certificate was issued are listed in the following Table 1:

Table 1. Included certification levels

Certified certification level	Included certification level			
	CL 1	CL 2	CL 3	CL 4
CL 1	X	✓	✓	✓ ¹⁾
CL 2		X	✓	✓ ²⁾
CL 3			X	
CL 4				X ³⁾

X Certified certification level.
✓ Included certification level.
 1) A CL 1 certificate also permits design or purchase & resale or purchase & assembly for all certification levels if so indicated in the certificate.
 2) A CL 2 certificates also permits design or purchase & resale or purchase & assembly for the certification levels CL 2 and CL 3 if so indicated in the certificate.
 3) A CL 4 certificate permits design or purchase & resale or purchase & assembly for the certification level specified in the field of application of the certificate.

Note: If CL 4 for design is not included, this must be indicated in the certificate.

4 Requirements

The requirements on the welding manufacturer for the certification level applied for can be seen from DIN EN 15085-2. For details please refer to section 5 and Annex C of DIN EN 15085-2. Further explanations are included in Sections 4.1 to 4.4 of this Guideline.

4.1 Quality requirements

The welding manufacturer must demonstrate its compliance with the requirements of DIN EN ISO 3834-2 to DIN EN ISO 3834-4 to the manufacturer certification body. For details, please refer to Annex C of DIN EN 15085-2.

Evidence of calibration and validation of the measuring, inspection and testing equipment (see section 16 of DIN EN ISO 3834-2) is only necessary if this is contractually required.

4.2 Staff requirements

4.2.1 Welding coordinators

The welding manufacturer must demonstrate its compliance with the requirements of section 5.1.2 and Annex C of DIN EN 15085-2. DIN EN 15085-2 contains minimum requirements on the availability of welding coordinators. The required number of welding coordinators depends on the size of the welding manufacturer as well as the extent of the welding production and the number of subcontractors.

The tasks and areas of competence of the welding coordinators must comply with the requirements of DIN EN 15085-2, Annex B. They must be laid down in writing for each welding coordinator and must be verified by the manufacturer certification body as part of the audit for the certification. The independence of the welding coordinators must be clearly shown in an organization chart. The manufacturer certification body must verify that the responsible welding coordinators are integrated in the organization of the welding manufacturer in a way that allows them to attend to their tasks and areas of competence pursuant to DIN EN ISO 14731 without any restrictions. For this purpose, they must have the required authority to instruct and their own decision-making power. If the areas of competence are separated (e.g. for production, subcontracting and design), this must be indicated in the certificate.

The welding manufacturer must provide evidence of the professional experience of its welding coordinators (e.g. evidence of qualification).

Welding coordinators without a qualification according to the relevant IIW/EFW guidelines (IWE/EWE, IWT/EWT, IWS/EWS) must demonstrate the necessary technical knowledge on welding during an extended interview as part of the certification audit. In addition, the welding manufacturer must furnish evidence of the professional experience of the welding coordinators.

Note: For further details, please refer to section 5.3.2 "Interview with welding coordinators" of this Guideline.

Section 5.1.2 of DIN EN 15085-2 specifies who may deputise without restriction for the responsible welding coordinator.

Welding coordinators who are not employed directly (on site) by the respective welding manufacturer are "subcontracted welding coordinators" (referred to below as "external welding coordinators) – please refer to section 5.1.3 "Subcontracted welding coordinator" of DIN EN 15085-2. This also applies to part-time staff who work less than 50 % of the collectively agreed working hours.

For external welding coordinators, the following must be observed:

- The working hours of external welding coordinators must be contractually agreed so that they can perform their tasks as defined in Annex B of DIN EN 15085-2 (evidenced in a work book).
In addition, the following applies:
 - ✓ For new build production, the external welding coordinator should be present during at least 50% of the welding production within scope of the relevant standard (evidenced in a work book),
 - ✓ For repair/finishing welding, the required presence depends on the extent of the welding production within the scope of the relevant standard (evidenced in a work book).
- Auditors of a manufacturer certification body may not act as external welding coordinators.
- For certification levels CL 1 and CL 2, an external welding coordinator may only be approved for a maximum of two welding manufacturers.
- For the repair of railway vehicles, the special regulations of DIN 27201-6 must be observed (a responsible welding coordinator may serve two further welding manufacturers of the same railway vehicle operator).

For certification level CL 4 (manufacturers without own welding production), an external welding coordinator may serve a maximum of three manufacturers. In that case, all work books must be submitted to the auditor of the manufacturer certification body to allow an assessment of the overall extent of his or her work.

4.2.2 Welders/welding operators

For each welding process, material group, joint type and dimension, at least two welders/welding operators with a valid qualification pursuant to the applicable standards must be available. For the repair of railway vehicles, the special regulations of DIN 27201-6 must be observed.

Since both butt and fillet welds are common in railway vehicle construction, the welding manufacturer must furnish BW and FW welder qualification test certificates.

The field of work of welders/welding operators in production must be in line with the scope of the available qualification test certificates.

For welding work that is not covered by the welder qualification test, the welding manufacturer must additionally provide evidence of production weld tests prior to production as required by section 4.2.4 of DIN EN 15085-4. Their performance and validity are governed by DVS 1621.

Weld operators must be qualified pursuant to DIN EN 1418.

4.2.3 Inspection personnel

According to section 5.1.4 of DIN EN 15085-2, the welding manufacturer must have inspection personnel. For the repair of railway vehicles, the special regulations of DIN 27201-6 must be observed (NDT inspection staff according to DIN EN 473, visual inspector).

4.3 Equipment

The production workplaces, including workplaces for assembly, must be sufficient in size and nature to allow a proper and reproducible performance of welding work. The requirements of section 5.2 of DIN EN 15085-2 must be complied with. For further details, please refer to the DVS 1617 code of practice.

4.4 Welding procedure specifications

According to DIN EN 15085-2, welding procedure specifications (WPSs) in line with DIN EN ISO 15607 (DIN EN ISO 15609ff, DIN EN ISO 14555, DIN EN ISO 15620) are required for welds classified in the weld performance classes CP A to CP C3. Evidence must be furnished as described in section 4.1.4 of DIN EN 15085-4.

5 Certification procedure and verification

Section 6 of DIN EN 15085-2 describes the procedure for certifying welding manufacturers. The manufacturer certification body must audit and verify the welding manufacturers in a way that it can be demonstrated that the requirements of the DIN EN 15085 series of standards and this Guideline are complied with.

For subcontracting, the DVS 1617 code of practice includes further information.

For welding manufacturers performing repair work on railway vehicles according to DIN 27201-6, also compliance with that standard must be demonstrated.

5.1 Manufacturer certification bodies

Audits may only be performed by the manufacturer certification bodies recognized by the national safety authority. In Germany, the EBA keeps a list of the recognized manufacturer certification bodies. The manufacturer certification bodies must be included in the Online Register (register of the certified welding manufacturers in railway vehicle construction) maintained by SLV Halle.

5.2 Application

Annex 1 contains the "Application for certification for the welding of railway vehicles and components according to DIN EN 15085-2". The application for the initial or renewed certification must be addressed by the welding manufacturer to one of the manufacturer certification bodies recognized by the national safety authority. With the application, the welding manufacturer confirms that it complies with the generally accepted rules of technology and that it submits to the annual verification.

The manufacturer certification body issuing the certificate must be notified of any modifications occurring during the period of its validity.

If it can be seen from the application that the manufacturer used to be handled by another manufacturer certification body, the "new" manufacturer certification body must inform the "old" manufacturer certification body. The documents on the previous certification(s) must be made available to the "new" manufacturer certification body. After the completion of the certification procedure, it must be verified that the welding manufacturer is only listed once in the Online Register.

If an external welding coordinator has been recognized by several manufacturer certification bodies, these must consult with each other.

For a renewal of the certificate, the application form must again be completed and the "renewal application" box must be checked. If no changes have occurred in the meantime, the submission of the required Annex(es) to the application is waived.

5.3 Audit

The certification is preceded by an audit.

During that audit, the welding manufacturer must demonstrate that the welding coordinators have the technical knowledge on welding and the qualification as required by section 5.1.2 of DIN EN 15085-2 (see also further information on the interview in sections 4.2.1 and 5.3.2 of this guideline).

The extent of the audit depends on the certification level, the field of application, the number of welders and the welding procedures, the scope of the welding shops and the materials used. As part of the audit, the following is verified:

- available personnel including evidence of valid qualification test certificates
- equipment including production and production quality
- welding procedure specifications, qualification of welding procedures
- documentation of the welding planning (drawings, welding plan, inspection and test plan).
- compliance with the quality requirements of DIN EN ISO 3834-2, -3 and/or -4.

As part of the first audit, welding tests in the form of production weld tests, welder qualification tests or procedure qualification tests are mandatory to demonstrate the practical knowledge of the welding coordinators. Otherwise, production weld tests are required for planned new entries of welding coordinators, procedures and material groups as required by the applicable standards.

Note: Welder qualification tests and/or production weld tests may only be accepted by welding coordinators who have demonstrated the related qualification as part of the audit. The test certificate may only be issued by welding coordinators who are identified in the certificate of the welding manufacturer.

If the manufacturer has welders with valid qualification tests certificates, the verification is performed on the basis of production weld tests for the responsible welding coordinators' evaluation (one production weld test for each procedure and, if applicable, each material).

If the required welder/welding operator qualification test certificates are not available, these tests can be made as part of the audit and the related certificates can be issued by the manufacturer certification body.

For a renewal of the certificate, some of the welder qualification tests or production weld tests accepted by the welding coordinators must be submitted to the manufacturer certification body for examination.

If the manufacturer certification body does not confirm the test results, new tests have to be taken. If there are doubts concerning the knowledge and skills of the welders, production weld tests will be necessary, so test specimens with tack welds should be available.

The test covers: welding procedure specification, evaluation sheet, issued test certificate, memorandum on the verification of the technical knowledge and the weld test specimens.

The welding coordinators must keep a list of the employed welders showing which welders have which valid qualifications. The welding coordinators are also responsible for making the relevant entries on the semi-annual internal qualification renewals at the manufacturer's (may be software-assisted).

For certification level CL 4, only the compliance with the requirements of sections 5.1 (welding coordination) and 5.3 (welding coordination organization) of DIN EN 15085-2,

and the compliance with the quality requirements of DIN EN ISO 3834-3 (if applicable) must be verified.

5.3.1 Site inspection

Site inspections are made together with the welding coordinators. During these inspections, the implementation of the above requirements in the welding production is verified.

In addition, the proper execution of the welded subassemblies and structures resulting from the current production will be verified.

If during the initial certification, no corresponding components are in use, the first verification audit is made when production is started.

5.3.2 Interview with welding coordinators

During this informal interview, technical books, training documents, standards, guidelines or requirements issued by the national safety authority, etc. may be used freely.

In the interview, the welding coordinators must demonstrate technical knowledge on the special requirements of the DIN EN 15085 series of standards, the DIN 27201-6 (only for repair of railway vehicles) and the related DVS codes of practice / guidelines. This also includes any other standards and regulations applicable to the field of activity. This does not mean that the welding coordinators must know all these standards and regulations by heart. Rather, they must know where to find stipulations on specific problems. To demonstrate this, the welding coordinators must find the applicable standard and the relevant stipulation included in it within a reasonable time. The standards must be available in a language that the welding coordinators understand.

The questions are limited to issues that may arise within the scope of the standards, materials and welding procedures for which the certificate is applied for.

Persons without a IIW/EFW qualification who are to be recognized as welding coordinators must demonstrate the required technical knowledge pursuant to DIN EN ISO 14731 and section 5.1.2 of DIN EN 15085-2 in an extended interview.

As a matter of principle, the technical knowledge according to section 6 of EN ISO 14731 must be demonstrated depending on the level of the welding coordinator. In addition, adequate knowledge must be demonstrated in the fields listed below, depending on the certification level. In this respect, the national rules and regulations on occupational safety and the prevention of accidents must be taken into account.

5.3.2.1 For certification levels CL 1 and CL 2:

General requirements based on DIN EN 15085-1:

Changes, application, terms and definitions, quality requirements.

Quality requirements and certification based on DIN EN 15085-2:

Quality requirements on the welding manufacturer, technical requirements, testing laboratories, staff requirements, organization, welding procedure specifications.

Design requirements based on DIN EN 15085-3:

Design requirements, drawing data, tolerances, weld performance classes and weld

inspection classes, quality levels, material selection, requirements on weld joints, joint preparation.

Production requirements based on DIN EN 15085-4:

Planning documents, evidence of welding procedure specifications, production weld tests, requirements on the welding, welding consumables, parent materials, welding procedures, repair.

Inspection, testing and documentation based on DIN EN 15085-5:

Inspection and testing before, during and after welding, inspection and test planning, documentation, conformity.

Special issues (see Annex 2, item 4)

The requirements also include knowledge on other standards and regulations that may be applicable, such as:

- DIN 27201-6 State of railway vehicles – Basic principles and production technology – Part 6: Welding
- DVS 1608 Design and fatigue testing of welded joints of aluminium and aluminium alloys in the construction of railway vehicles
- DVS 1610 General guidelines for planning the welding production in the construction of railway vehicles
- DVS 1612 Design and fatigue testing of welded steel joints in the construction of railway vehicles
- DVS 1614 Straightening in the construction of railway vehicles
- DVS 1617 Quality requirements on subcontractors for welding railway vehicles and components
- DVS 1620 Inspection and testing of welding in the construction of railway vehicles
- DVS 1621 Production weld tests in the construction of railway vehicles

5.3.2.2 For certification level CL 4, field of application: Design:

General requirements based on DIN EN 15085-1:

Changes, application, terms and definitions, quality requirements, to the extent applicable.

Quality requirements and certification based on DIN EN 15085-2:

Quality requirements, technical requirements, testing laboratories, staff requirements, organization, to the extent applicable.

Design requirements based on DIN EN 15085-3:

Design requirements, drawing data, tolerances, weld performance classes and weld inspection classes, quality levels, material selection, requirements on weld joints, joint preparation.

Production requirements based on DIN EN 15085-4:

Planning documents, including welding plan, welding sequence plan

Inspection, testing and documentation based on DIN EN 15085-5:

Inspection and test planning, documentation, conformity.

Special issues (see Annex 2, item 4)

The requirements also include knowledge on other standards and regulations that may be applicable, such as:

- DIN 27201-6 State of railway vehicles – Basic principles and production technology – Part 6: Welding
- DVS 1608 Design and fatigue testing of welded joints of aluminium and aluminium alloys in the construction of railway vehicles
- DVS 1610 General guidelines for planning the welding production in the construction of railway vehicles
- DVS 1612 Design and fatigue testing of welded steel joints in the construction of railway vehicles
- DVS 1620 Inspection and testing of welding in the construction of railway vehicles

5.3.2.3 For certification level CL 4, field of application: purchase & resale or purchase & assembly (as applicable):

General requirements based on DIN EN 15085-1:

Changes, application, terms and definitions, quality requirements.

Quality requirements and certification based on DIN EN 15085-2:

Quality requirements, technical requirements, testing laboratories, staff requirements, organization, welding procedure specifications.

Design requirements based on DIN EN 15085-3:

Drawing data, tolerances, weld performance classes and weld inspection classes, quality levels, material selection, requirements on weld joints, joint preparation.

Production requirements based on DIN EN 15085-4:

Planning documents, evidence of welding procedure specifications, production weld tests, requirements on the welding, welding consumables, parent materials, welding procedures.

Inspection, testing and documentation based on DIN EN 15085-5:

Inspection and testing before, during and after welding, inspection and test planning, documentation, conformity.

Special issues (see Annex 2, item 4)

The requirements also include knowledge on other standards and regulations that may be applicable, such as:

- DVS 1614 Straightening in the construction of railway vehicles
- DVS 1617 Quality requirements on subcontractors for welding railway vehicles and components
- DVS 1620 Inspection and testing of welding in the construction of railway vehicles
- DVS 1621 Production weld tests in the construction of railway vehicles

5.4 Documentation

The manufacturer certification body documents its professional/technical assessment in an audit report based on the sample enclosed as Annex 2 to this Guideline. Copies of this report are given to the welding manufacturer and the national safety authority.

5.5 Final discussion

The result of the audit is discussed with the welding coordinators and, if appropriate, with the management of the firm.

5.6 Issuance of the certificate

Upon a successful audit, the manufacturer certification body issues a certificate pursuant to Annex 3 (for CL 1 to CL 3) or Annex 4 (CL 4) of this Guideline which states that the welding manufacturer is qualified to perform welding work in line with the requirements of the standard.

The certificate is issued in German – for foreign welding manufacturers upon request in English/German – and must be suitable for copying and telefax transmission. All material information on the range of certification must be shown on one page.

The manufacturer certification body must ensure that any issued certificate is included in the Online Register. The same also applies to modifications of certificates.

The qualification of the welding coordinators must be stated in line with DIN EN 15085-2. For comparable foreign qualifications, the manufacturer certification body must evaluate their equivalence. The certification level according to DIN EN 15085-2 must be stated in the certificate.

As a minimum, the certificate must contain the following information:

- **Name and address of the welding manufacturer**
For each welding manufacturer, a separate certificate is required.
- **Certification level**
Here, the highest certification level pursuant to DIN EN 15085-2 must be stated.
- **Field of application**
The field of application must be stated in line with Annex A of DIN EN 15085-2. If there are any restrictions, these must already be indicated in the field of application. It must also be indicated if the "design" field of application of certification level CL 4 is not to be included in the range of certification of certificates of levels CL 1 or CL 2 (recommended wording "except design").
Finishing welding must be stated separately.
- Recognition for a single-purpose production must be stated separately.
- For CL 4 certificates, also the parts allocation with the corresponding certification level must be stated for the range of certification.
- **Welding processes**
Welding processes must be indicated using the nomenclature and reference number of DIN EN ISO 4063.

- **Material groups**
The material groups must be indicated according to the CEN ISO/TR 15608 technical report.
- **Other materials**
This only relates to materials that are not listed in the CEN ISO/TR 15608 technical report.
- **Dimensions**
The dimensions must be clear and be stated separately for sheets and pipes. The dimensions to be stated include t_{\min} - t_{\max} for sheets and D_{\min} - D_{\max} for pipes.
- **Comments**
Special characteristics, e.g. type of weld, overlay welding, finishing welding, must be stated. If they are stated on the reverse, this must be indicated on the front.
- **Responsible welding coordinator**
First name, family name, date of birth, IIW/EFW qualification (e.g. IWE/EWE, IWS/EWS, IWT/EWT, IWP/EWP) or level according to DIN EN 15085-2 must be stated. In case of separate areas of competence, these must be indicated as well (e.g. design, production, different organizational units). External welding coordinators must be marked "external".
- **Deputy with equal rights**
First name, family name, date of birth, IIW/EFW qualification (e.g. IWE/EWE, IWS/EWS, IWT/EWT, IWP/EWP) or level according to DIN EN 15085-2 must be stated.
- **Additional deputies**
First name, family name, date of birth, IIW/EFW qualification (e.g. IWE/EWE, IWS/EWS, IWT/EWT, IWP/EWP) or level according to DIN EN 15085-2 must be stated.
Note: If additional deputies are stated on the reverse, this must be indicated on the front.
- **Certificate number**
The nomenclature described in Annex 5 of this Guideline must be observed. The year of the initial certification is kept. Each welding manufacturer may only have one number (no duplication of numbers).
- **Period of validity**
- **Date of issue**
- **Name of auditor**
- **Signature** (head of the manufacturer certification body or its authorized representative)

5.7 Period of validity

The certificate is issued for a limited period and subject to revocation. It is valid for a maximum period of three (3) years. If there are good reasons, the manufacturer certification body may make the validity of the certificate contingent on the satisfaction of additional conditions (e.g. additional welding coordinators, testing and assignment of

additional welders, additional inspection and testing as part of the quality assurance, continuous production weld tests, production monitored by the manufacturer certification body); any such conditions must be stated in the report according to Annex 2.

5.8 Verification

As stipulated in section 7 of DIN EN 15085-2, the manufacturer certification body verifies the compliance with the requirements of DIN EN 15085-1 to -5 in the areas of application for which the certificate was granted during the period of the certificate's validity. The verification relates to the current production (subassemblies) and the quality records on running and completed projects as well as to knowledge about new standards and regulations.

The verification is based on the following principles:

- compliance with DIN EN 15085-1 to -5 by the welding manufacturer; and
- annual verification on site by the manufacturer certification body.

If certification was granted with conditions, the verification interval may be shortened, depending on the extent of production.

During the annual on-site verification, the results of internal audits may be considered (e.g. in case of separate welding shops).

This annual verification will also be carried out if no parts according to DIN EN 15085 ff are available in the workshop at the time of the audit. This means that the welding manufacturer must in any case demonstrate that it continues to satisfy the staff-related and operational requirements of the standard for as long as its certificate is listed in the register. This serves to ensure that follow-up jobs can be processed without delay.

5.9 Renewal of the certificate

After the period of validity of the certificate has expired, the certificate may be renewed following an audit of the welding manufacturer (site inspection) by the manufacturer certification body without comprehensive interview and production weld tests if:

- ✓ the welding coordinators continue to perform their functions without any changes over the previous certification and
- ✓ the technical, staff-related and organizational conditions comply with the requirements of the standard and
- ✓ valid qualification test certificates for the welders and the welding personnel are available and
- ✓ there have been no material complaints in the range of certification.

During the site inspection, the welding coordinators must also demonstrate their knowledge of new standards and regulations.

5.10 Modification of the certificate

If there are any changes in the scope of the certificate, a modification application (no special form required) must be submitted to the manufacturer certification body without delay.

5.11 Revocation of the certificate

The manufacturer certification body or the national safety authority may revoke a certificate if the conditions pursuant to DIN EN 15085-2 are no longer satisfied. The welding manufacturer must acknowledge the revocation to the manufacturer certification body in writing. The national safety authority must be notified of the revocation by the manufacturer certification body. The main customer for the current production must be informed of the revocation by the welding manufacturer.

5.12 Validity of the certificate

The certificate is only valid for the respective welding manufacturer (site of the facility) and its welding coordinators.

5.13 Exceptions

Any exceptions and disputes between the welding manufacturer and the manufacturer certification body are decided by the national safety authority.

In case of violations against generally accepted rules of technology or this Guideline, the national safety authority must be informed (e.g. by the customer).

5.14 Transitional regulations

Welding manufacturers qualified according to DIN 6700-2 must satisfy the requirements for a certification according to DIN EN 15085-2 on or prior to the expiry of their current qualification if their qualification is to be continued as a certificate according to DIN EN 15085-2.

- Annex 1: Application for certification for the welding of railway vehicles and components according to DIN EN 15085-2
- Annex 2: Sample of a certification / verification report according to DIN EN 15085-2
- Annex 3: Sample certificate for CL 1 and CL 3
- Annex 4: Sample certificate for CL 4
- Annex 5: Nomenclature for the certificate number according to DIN EN 15085-2