

Adhesive Bonding in Rail Vehicle Construction

- Scope and Requirements of DIN 6701 -

Objective of the standard:

Since not only the welding technology is being used as joining method in safety relevant components but also adhesive bonding applications are increasingly applied, it is consequent to publish a manual to manufacturers which increases awareness regarding the handling- from design to manufacturing- of adhesive bonding and ensures the quality of such joined components.

As a counterpart of the standard DIN EN 15085 „Welding of railway vehicles and components“ the standard DIN 6701 „Adhesive Bonding of Rail Vehicles“ is being published and thus becoming the mandatory standard of adhesive technology. Within this standard, mandatory requirements of adhesive bonding for manufacturers of rail vehicles or their components are being described.

Certification of the companies:

Manufacturers of rail vehicles and their components as well as companies constructing adhesive bonds or adhesive bonded structural components must demonstrate a registration according to the adhesive bonding standard. This means that a certification body (certification authority) which is entitled by the working group adhesive bonding DIN 6701 or a national accreditation body has to carry out an internal audit including a technical discussion which will prove that the company is operating within the standard requirements:

For example, this audit entails the evidence

- on the required qualification of the company
- on the denomination of at least one responsible adhesive bonding coordinator
- on the required qualification of the adhesive bonding coordinators
- on the qualification of the adhesive bonding personnel
- on the execution of a review of the design
- on the required working instructions and procedure specifications

The Qualifying Body then, upon a successfully passed audit, will award the adhesive bonding company the certification on the compliance with the requirements. This certificate is bound to the company. Subsequent to this, surveillance inspections will be carried out every three years.

Now, the TC-Kleben has been certified as a Qualification Body pursuant to DIN 6701 – Adhesive Bonding in Rail Vehicle Construction.



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Center Adhesive Bonding
Technology EWF/ DVS®

DVS

Scope of the Standard:

- DIN 6701: Adhesive Bonding in Rail Vehicle Construction
- Part 1: Terms
- Part 2: Qualification of manufacturers
 - - Personnel requirements
 - - Technical equipment
 - - Quality requirements
 - - Requirements adhesive bonding supervisory (SiC)
 - - documentation
- Part 3 Guideline for construction design and verification
- Part 4 Manufacturing controls and quality assurance

Product component classes:

The requirements of the necessary qualification grade are established according to product component classes. The company has to have the appropriate adhesive bonding staff depending on the product component class and maintain the grade of quality assurance. These classes are defined by the adhesive bonding company according to the safety requirements of the product component. .

Adhesive bonding personnel:

Not only the requirements on organization and equipment but also those on staff are being referred to in the standard which for example, defines the tasks of the adhesive bonding coordinator. Since many years, the necessary qualifications of this job have been offered in the form of further training within Germany. These qualifications are based on the guidelines published by the DVS and meanwhile have been harmonized on a European level

Information:

For many years, the Society for Welding Technology International GSI mbH offers the quality assurance certification under DIN EN 15085 through its regional offices , the welding related research and educational institute (SLV). Within the GSI, TC Kleben is the partner representing the bonding technology as an alternative joining method and is allowed as certification body to carry out audits under DIN 6701. Therefore, we are available for any questions regarding this standard and possible audits.

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Certification Body under DIN 6701

Center Adhesive Bonding Technology
of the DVS e.V.

Cooperation partner of the GSI mbH

Member of DVS e.V., Dechema e.V.