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## Delivery specification for bonded assemblies and parts, DIN 6701

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### Part 1 General requirements (10010112)

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b	General revision.	16.11.2015	Günter Schmid	Gernot Eberle	Günter Schmid
c	Classification "Z" added	25.10.2016	Günter Schmid	Jürgen Ruess	Gernot Eberle
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**Review**

Index	Date	Involved	Comments
b	16.11.2015	G.Eberle, G.Schmid	General revision, clean up.
c	25.10.2016	G.Eberle, G.Schmid	Certificate of liability + classification "Z" added,
d	14.12.2016	G.Schmid, G.Eberle	Formal change due to check, release
e	14.08.2019	G.Schmid, G.Eberle	Formal change: Stadler Rheintal AG

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# 1 Scope of application

Applies to purchasing from suppliers of Stadler Bussnang AG and Stadler Rheintal AG, hereinafter referred to as "Stadler".

# 2 Specifications for procurement

Various requirements for procuring bonded assemblies and parts are derived from the classification of adhesive bonds. In accordance with the safety requirements, procurement may only be made from certified suppliers. Various documents are therefore provided to document the required data and characteristics.

## 2.1 Quality requirements and classification of bonded parts

Safety requirements of adhesive bonds on rail vehicles and on rolling stock parts in accordance with **DIN 6701**.

Class	Grading of safety requirements	Specification	Article no.
<b>A1</b>	High safety requirements	BU_1426597	10010107
<b>A2</b>	Medium safety requirements	BU_1426619	10010108
<b>A3</b>	Low safety requirements	BU_1426628	10010109
<b>Z</b>	No safety requirements	BU_2646716	12186505

If no clear allocation has been made, the customer is to be consulted.

## 2.2 Awarding of the contract with safety requirements

Orders regarding bonded assemblies and parts with **A1, A2, A3** classifications in accordance with **DIN6701** must always only be placed with **certified suppliers**.

In **special cases**, orders for A3 parts can be placed with non-certified or non-approved suppliers with **prior** consent and under inspection from a Stadler responsible adhesive bonding supervisor (rABS). In these cases, a non-certified supplier is supervised by a Stadler adhesive bonding supervisor. The personnel carrying out the work must be appropriately trained for adhesive bonding work. It must be ensured that these orders are manufactured in accordance with DIN 6701.

## 2.3 Awarding of the contract for assemblies without safety requirements

For orders without safety requirement (**Z**), no adhesive bonding certification is required for the supplier. **Nor** are the corresponding assemblies and parts the responsibility of the adhesive bonding supervisor.

- All "parts to be bonded" that do not fall under DIN 6701
- Adhesive film on the exterior of the vehicle and in the interior
- Adhesive film with advertising and decals without safety information
- Adhesive tape and auxiliaries that are needed/used only temporarily.

However, the supplier must be certified at least according to DIN EN ISO 9001:2008 and released by Stadler.

### 3 Supplier release

In principle, supplier release proceeds according to **VA-4.3.2**, Supplier management.

The adhesive bonding supervisor performs operational checks, during which the technical, spatial, and personnel-related conditions for adhesive bonding work in the corresponding safety classes are evaluated.

At the same time, all documents, specifications, and provisions relevant to bonding applications are provided.

### 4 Planning, first article inspection, and release

#### 4.1 Documents, reports A1 and A2

For assemblies and parts with A1 and A2 classification, adhesive bonding instructions, a inspection and test plan and test certificates must be created and delivered. In this context, the construction must also be checked and adjusted if necessary.

Test certificate and inspection and test plan include the following documents/reports to be **coordinated with Stadler** depending on type and scope:

- Adhesion certificate for the surfaces to be bonded and the preliminary treatment of the surface. (Test report in accordance with DVS-1618).

**Reports on the following characteristics and content:**

- Preliminary treatments/surface preparation on adherends.
- Adhesives and auxiliary materials (batch numbers), durability (expiry date).
- Work steps, temperatures, times, humidity, etc.
- Non-destructive part inspection: Visual check
- Production tests

The inspection certificates/test reports refer to these documents separately. They must be submitted to Stadler with the related delivery.

#### 4.2 Documents, reports A3 and Z

For assemblies and parts with A3 and Z classification, adhesive bonding instructions are to be created. Professional adhesive bonds must be guaranteed.

Type, scope, and time of measurements and tests are to be determined in coordination with the Stadler adhesive bonding supervisor. Adhesive bonding report must be prepared only when Stadler explicitly requests them.

#### 4.3 First article inspection (FAI)

Bonded assemblies and parts with **A1** and **A2** safety requirements must always be subjected to first article inspections (FAI). The FAI is listed as a separate order item in the order. The FAI program will be communicated to the supplier by Stadler as early as possible.

The supplier notifies Stadler of the appointment at least **2 weeks before the FAI**.

Parts with safety requirement **A3** and without safety requirement are subjected to an FAI **as required**. This is at the discretion of the Stadler adhesive bonding supervisor and must be ordered accordingly.

The FAI may be performed only on assemblies/parts that have been produced entirely under serial conditions. It will also be decided whether the first article may be installed/continue to be used.

**The supplier bears all FAI costs.**

## 4.4 Series release

The procedure for series release is as follows:

- The series release will be granted immediately if the FAI has been completed without further action and rework.
- A conditional series release can be granted according to site-specific regulations on the condition that the outstanding actions be implemented on schedule. Implementation will be confirmed by those responsible for FAI in the FAI report. If the actions are not implemented properly, a complaint report (CR) will be triggered.
- If the part deviates from the specifications in essential points, the series release will be refused and the FAI repeated at a later date.

## 5 Labelling

According to the **A1/A2/A3/Z** classification, the parts/deliveries are to be identified and accompanied by various stipulated documents:

### 5.1 Safety requirements A1 and A2

**Individual identification** on parts plate or label as follows:

- Order no.
- Article no.
- Drawing no. (if available)
- Individual part no. (serial no.)
- Date of manufacture

### 5.2 Safety requirement A3 and Z

**Collective identification** for the delivery/packaging unit:

- Order no.
- Article no.
- Drawing no. (if available).

## 6 Documentation to Stadler

- **Inspection certificate 3.1, according to EN 10204**

Inspection certificate 3.1 must be explicitly ordered.

The Q documents are to be delivered together with the goods and the delivery note. A copy of the Q documentation is to be sent to the Q Office in the Procurement Dept., either under separate cover labelled "Important Documents" or electronically per E-mail. The delivery address and contact person at the Q Office in the Procurement Dept. can be found in the order.

## 7 Sub-awarding work, parts and products provided by the purchaser

### 7.1 Outsourcing to sub-suppliers

If work is awarded to sub-suppliers, the same requirements apply as those for the suppliers. The sub-supplier must submit a corresponding qualification. Stadler must be informed in writing before any work is outsourced to sub-suppliers.

### 7.2 Purchaser-provided products

If assemblies/parts are provided for processing or further treatment by Stadler, they are to be labelled, stored, and processed on an order-related basis. For direct shipments from Stadler suppliers, the Q documents and a copy of the delivery note are to be sent to the procurement department's Q office (Stadler).

## 8 Overview and application

		BU_1426597 10010107	BU_1426619 10010108	BU_1426628 10010109	BU_2646716 12186505	
1		* (1) Coordination with the responsible adhesive bonding supervisor is required.				
		* (2) Order is required.				
		<b>Classification according to DIN 6701</b>	<b>A1</b>	<b>A2</b>	<b>A3</b>	<b>Z</b>
2	Supplier requirements	Certification according to ISO 9001-2000, requirements met.	X	X	X	X
		Supplier certification A1 (DIN 6701)	X			
		Supplier certification A2 (DIN 6701)		X		
		Supplier certification A3 (DIN 6701)			X	
		Release by responsible Stadler rABS and Stadler quality control	X	X	X	X
3	Planning Series release	Inspection and test plan, test record *(1)	X	X		
		Adhesive bonding instruction, measurement and test report	X	X	X <sup>2</sup>	X <sup>2</sup>
		Adhesive bonding report	X	X	X <sup>2</sup>	X <sup>2</sup>
		First article inspection (FAI) at the supplier by Stadler	X	X	X <sup>2</sup>	X <sup>2</sup>
		First piece acceptance and series release at Stadler.			X	X
4	Identification	Individual identification with unique part no. on part plate or label	X			
		Individual identification with order no. and/or batch no.		X		
		Identification per delivery/packaging unit			X	X
5	Documentation Series delivery	Delivery note	X	X	X	X
		Inspection certificate 3.1 EN 10204	X <sup>2</sup>	X <sup>2</sup>	X <sup>2</sup>	
		Adhesive bonding report, measurement and test report	X	X	X <sup>2</sup>	