VIEGA Quality Requirements

Production Process and Product Release Procedures (PPR Procedure in accordance with IMVA V.06.010)

- State 03/2017 -

These VIEGA quality requirements for the production process and product release procedure provide suppliers with a source of information in order to be able to find out information independently, regularly or as required about the initial sample requirements needed to conform to the specification. The VIEGA quality requirements are provided to suppliers on the VIEGA homepage www.viega.com.

1. Supplier Information

The PPR Procedure and its Application:

The PPR procedure ensures that material products fulfil the requirements defined by Viega. This applies to both new items and **modifications to items/ processes**. The main idea of the procedure is to enable the supplier to provide Viega with a binding declaration that the PPR procedure has been successfully completed.

The PPR procedure is the concluding verification of the product and production planning process. It leads to release for series production and mutual commitment to quality.
The procedure describes the general conditions which permit Viega and suppliers to appropriately arrange the PPR.
The procedure is used for material products (systems, parts, components, semi-finished products), in the form of purchased parts and merchandise.

Reasons for the Introduction of the PPR Procedure at VIEGA:

- In the past, suppliers often changed their presuppliers. Such a change should not affect the quality of Viega-products negatively.
- To date, the product releases have only be based on the quality of the initial sample. For some items, this was not sufficient because product processes from suppliers were not reliable. This led to deviating quality upon delivery.
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2. Changes after the Introduction of the PPR Procedure for Suppliers:

The suppliers are obligated to provide Viega with information (see Point 4).

3. Possible Triggers for the PPR Procedure at VIEGA:

The contractual partners must provide each other with information about product modifications and product-relevant process changes in a timely manner. As a general rule, information must be provided for:

Reason for Change (Obligation to provide information: As a matter of principle)	A-Item	B-Item	C-Item	D-Item
In the case of new parts	x	x	x	x
In the case of modifications to construction, specification or material	x	x	x	x
In the case of use of alternative materials or constructions	x	x	x	
In the case of significantly modified manufacturing methods or production processes	x	x	x	
In the case of the use of newly manufactured tools/ replacement tools or in the case of major changes to existing tools	x	x	x	
In the case of production relocation or use of new production facilities	x	x	x	
In the case of a change in subcontractor (except for electrical components => function consent it required)	x	x	x	

Reason for Change (Obligation to provide information: If product properties are influenced)	A-Item	B-Item	C-Item	D-Item
After a delivery stop caused by quality	x	x	x	
After shut-down of production facilities (12 months or longer) (Products for the replacement parts market are exempt from this)	x	x	x	

4. Evaluation of the Manufacturing Process by VIEGA:

As well as the pure product sampling, selected items are also subject to an evaluation of the manufacturing processes, with help from the following and other processes:

- Process FMEA,
- Process flow diagram,
- Production/ inspection plan,
- Results from process capability studies.

5. Definition of “Initial Sample”:

Initial samples are products and materials, which have been manufactured completely with serial-production equipment under serial-production conditions. Sampling for production process and product release must be carried out with initial samples.

6. Creation of Initial Samples by Suppliers:

Initial samples, which are provided for inspections, tests and shipping to VIEGA, should be removed as random samples from the production process, which is operated under series-production conditions. The number of sample parts to be provided is agreed between Viega and the suppliers. Different clusters or production stations should be taken into account for this decision (at least 1 sample per cluster/ station). These should also be labelled.

7. Documentation and Archiving of Initial Sample Results:

Initial samples are inspected by suppliers and the results are documented in the electronic initial sample inspection report. These results must correspond 100% to the specification guidelines. In agreement with VIEGA, the appropriate material datasheets (2.1, 2.2 or 3.1 certification) and/ or certificates/certificates of acceptance must be attached to the samples.

Initial samples must be stored by suppliers and VIEGA for 10 years.

8. Definition of “Special Samples”:

Special samples are products and materials which have not been manufactured completely under series-production conditions. Special samples must not be used for production process and product release.

However, these samples can be used for client products if they fulfil the specifications. A release of special samples, for example prototype samples or fitting samples, by the construction or development department of VIEGA, does not mean series release and does not justify any reason to dispense with the PPR procedure.

If VIEGA should expressively desire provision of special samples, then the purpose of the sampling and the scope of the sampling and submission must be agreed and documented.

9. Product Characteristics to be sampled:

Samples must be provided of all product characteristics contained in drawings and specifications, as far as applicable, appropriate and not otherwise agreed:

- Dimensions
- Materials
- Function
- Reliability
- Visual Appearance
- Weight
- Haptics
- Acoustics
- Odour Characteristics

In the case of CAD drawings, information about the reference points, test steps and test surfaces is also required.

10. Identification of Initial Samples:

Samples must be clearly labelled in order to ensure allocation to the individual data. If applicable, origin from single-cavity or multi-cavity moulds must be included in the label. All characteristics must be clearly labelled and listed individually with nominal values, thresholds and actual values. The actual values must be allocated to the individual samples.

The sample packaging must be labelled with the attached quality management “Initial Sample” or “Special Sample” document. The location of the samples must be recognisable in the delivery note.

11. Definition of “Submission Level”:

The submission level determines which documents, notes and, if applicable, samples must be submitted to VIEGA for the production process and product release. Submission can also take place on-site at the supplier’s. VIEGA will store any submission levels determined in the future in CATIA diagrams.

12. Defined Submission Levels:

Point	Requirement	Submission level			
		D	C	B	A
1	Initial sample test report (ISTR) cover sheet	X	X	X	X
2	Test results (dimensions, materials, function, reliability, visual appearance, weight, haptics, acoustics, 3.1 certification, process capability)		V	V	V
3	Sample (number of pieces or delivery on agreement)		A	A	A
4	Documentation (e.g. drawings, CAQ-data, specifications, piece lists and individual piece drawings from construction groups, etc.)			V	V
5	Construction-, development release			X	X
6	FMEA				E
7	Process flow diagramm (production and test stages)			X	X
8	Inspection plan with inspectio equipment list (product relevant)			X	X
9	Test equipment capability test, when relevan (result)				V
10	Machine-/ Process capability test				V
11	Proof of compliance with legal requirements as agreed with Viega (e.g. certification, environment, recycling, safety)			V	V
12	Listing of all subcontractors, including corresponding part and procedure				X
13	Supplementary sheet "Materials in purchased parts" (material data sheet)	X	X	X	X

X	Forderungen für die jeweilige Vorlagestufe
V	Forderungen, wobei der Umfang zwischen Viega und dem Lieferanten zu vereinbaren ist
A	Anzahl Muster (>=0) ist mit Viega zu vereinbaren
E	nur zur Einsicht

13. Determination of Submission Levels by VIEGA:

A submission level is defined by VIEGA between the development and the quality control procedures.

Possible Selection Criteria for Submission Level D:

- Standardised item
- Simplest item

Possible Selection Criteria for Submission Level C:

- Standard item

Possible Selection Criteria for Submission Level B:

- Function-relevant items

Possible Selection Criteria for Submission Level A:

- Safety-relevant components

14. Granting of an Initial Sample Release:

VIEGA will assess the submitted documentation and, if applicable, the sample parts, add the individual and overall release status to the electronic initial sample test report cover sheet and, if nothing else is agreed, communicate this to the suppliers electronically.

15. Possible VIEGA Release Status:

- **Free:** Deliveries of products are released in accordance with the delivery schedule
- **Free with Condition:** The delivery of products is only permitted for a certain time or quantity. The details of the conditions must be agreed between VIEGA and the suppliers. Subsequent samples may be required.
- **Rejected, Subsequent Sampling required:** The delivery of products is not permitted. Subsequent sampling is required.

Should delivery orders already have been issued by VIEGA to the suppliers, delivery is only permitted after receipt of the release status “Free” or “Free with Condition”. Series release without an appropriate release status is at the sole risk of the supplier.

16. Documentation of Reporting System by Supplier:

The attached initial sample test report (ISTR) must be used uniformly for all necessary information between the supplier and VIEGA (employer). The electronic ISTR must be completed in either German or English.

An ISTR is made up of a document and the test result datasheets agreed between VIEGA and the supplier depending on the submission level as well as any other documents required in accordance with Point 14.

The ISTR cover sheet contains all the necessary characteristics relating to the sampling and summarised decisions. The supplier is responsible for archiving the ISTR. The supplier is obligated to retain the ISTR for 10 years.

The test report datasheet contains the key data for the purpose of allocation to the ISTR cover sheet, such as

- Delivery note no.,
- Test report no.,
- Key data of sample parts

As well as the detailed test results of all agreed characteristics. Only one test job, for example, material inspection, function test, etc., is permitted per test result data sheet. On a sheet supplementing the ISTR, materials and their contents should be listed taking into account the specified declaration thresholds.

The number of copies should be agreed between VIEGA and the supplier. The entire and complete electronic ISTR (cover sheet and, if applicable, datasheets and/or other documents) is forwarded electronically by the supplier to VIEGA purchasing agent or quality staff.

VIEGA confirms on the ISTR or on its own test report (with reference to the ISTR) that the sampling has been carried out in accordance with VDA Edition 2, Section 4.

Thus, due to the electronically guided ISTR and clearly labeling, initial samples do not have to be sent to VIEGA together with the ISTR.

17. Further applicable documents:

- IMD V.06.005 -Initial Sample Test Report-
- IMD V.06.012 -Labelling of Initial Sample-
- IMD V.06.013 -Labelling of Special Samples-
- IMD V.06.014 -8-D Report