



April 2016

HKI-quality label



Checklist for submission of supporting documents for the first stage of the HKI-quality label as of 2016.

HKI developed a concept for a quality label with practical requirements that will help match the efficiency and emission-levels of fireplaces in real operation to the results of the reference appliances achieved during type testing. The goal of the HKI-quality label is to permanently cut emission rates and to increase efficiency values of the appliances during operation.

This checklist should be used as a guide to ensure that the submitted documents meet the requirements of the HKI quality label. The following aspects are explained in detail and the necessary documents for obtaining the HKI label are listed.

1. Documentation and verification of production control system
2. Recognition of an in-house control
3. Product requirements for the appliance

You should prepare the following documents, provided that these documents have not already been submitted to HKI for the HKI-CERT-database.

Documents provided by the manufacturer:

- Test report of a NB
- Installation and operating instructions
- Declaration of performance (DoP)
- QM-protocol or proof of certification according to EN ISO 9001

Excerpts from the basic information for the HKI-quality label:

- Annex A – Application form for the right of use of the HKI-quality label
- Annex B – Form for the evaluation of the leakage rate of the reference appliance
- Annex C – submission for the annual documentation of the production control
- Annex D – Application form for recognition of an in-house inspection body by HKI

1. Submission for the documentation of the production control system

The manufacturer implements an internal production control system. This in-house control has to be documented and the verification documents have to be submitted to HKI annually. A random inspection of this production control will be conducted once a year by an external testing body (e. g. FNH-staff member, FNH-consultant, NB). Provided the production control is conducted with a certified quality management system according to EN ISO 9000 ff, the afore-mentioned external random inspection is unnecessary.

→ Submission of documentation as specified in annex C of the HKI quality label with either a QM-protocol or proof of certification according to EN ISO 9001

2. Recognition of an internal production control

In order to obtain the HKI quality label, additional tests as specified by the quality label are necessary. These tests are carried out by a test lab / Notified body or an accredited in-house inspection body. The recognition of an in-house inspection body can be made by a Notified Body, DIN CERTCO or FNH.

→ Submission of application form as specified in annex D

3. Product requirements

Normative requirements

- Performance requirements for materials, design and construction
- Safety requirements
- Performance requirements

→ Submission of test report

→ Submission of operating instructions

Emission limits and efficiency requirements

Within the framework of the HKI quality label the emission limits and the efficiency specified in table 1 (2. step of 1. BImSchV in force in Germany since 01.01.2015) apply in regards to emissions of particulate matter (PM) and carbon monoxide (CO):

Table 1 - Threshold limit values

Appliances type	Test standard	Efficiency level [%]	CO [g/m ³ _N] ²	PM [g/m ³ _N] ²	OGC [gC/m ³ _N] ³	NOx [g/m ³ _N] ³
Roomheater with shallow bed	DIN EN 13240: 2005-10 (Intermittent burning)	78 ⁴	1,25	0,04	0,12	0,2
Roomheaters with fuel chute	DIN EN 13240: 2005-10 (Continuous burning)	78 ⁴	1,25	0,04	0,12	0,2
Inset appliances (closed operation)	DIN EN 13229: 2005-10	78 ⁴	1,25	0,04	0,12	0,2
Fireplace insets for retrofitting open fires	DIN EN 13229: 2005-10	76 ⁴	1,25	0,04	0,12	0,2
Inset appliances with shallow bed	DIN EN 13229: 2005-10	80 ²	1,25	0,04	0,12	0,2
Inset appliances with fuel chute	DIN EN 13229: 2005-10	80 ²	1,25	0,04	0,12	0,2
Slow heat release appliances	DIN EN 15250: 2007-06	80 ⁴	1,25	0,04	0,12	0,2

→ Submission of application form specified in annex A

→ Submission of test report

→ Submission of DoP

Requirements in addition to type testing according to harmonized standards

Profile of requirements specified in table 2:

Requirement for	Requirement profile in addition to type testing according to hEN
Durability	<p>Before type testing (NHO testing including emission determination) by a NB:</p> <ul style="list-style-type: none"> - Verifiable pre-testing of the test appliance for a minimum of 8 hours under NHO conditions or for a minimum of 4.5 hours under safety test conditions by a NB or the manufacturer. - Proof that all metallic components in contact with fire/flue gas have a minimum wall thickness of 2 mm (e. g. combustion chamber, flue gas ways, fireroom door). Exempted are parts that have to be built on a smaller scale due to their function¹. <p>→ Submission of annex A → Submission of test report</p>
Installation and Operating instructions	<p>The following information is mandatory for the manufacturer's operating instructions:</p> <ul style="list-style-type: none"> - The recommendation to install a draught regulator - If the efficiency is > 80% and the flue gas temperature is < 170°C (in measuring section), the user must be advised of possible condensation inside the chimney and that a renovation of the chimney might be necessary. Note: Higher flue gas temperatures may necessitate additional information. It is imperative to stress the importance of a safe evacuation of flue gas depending on existing chimney situation in the instruction manuals. - Indicate the necessity of opening the firebox doors slowly for refueling to prevent a possible leaking of flue gas, give an advice to open a window during this refueling period. - Include a brief illustrated instruction sheet explaining the correct way to light the fireplace. <p>→ Submission of annex A → Submission of Installation and operating instructions</p>
Production quality	<ul style="list-style-type: none"> - A determination of the reference leakage rate of a reference appliance from the production direct at application for HKI quality label is required, provided that this data has not already been determined at type testing. - The leakage rate shall not exceed $2 \text{ m}^3/\text{h} + 2 \text{ m}^3/(\text{h kW})$ at 10 Pa over- or under-pressure - The internal production control shall test the 1st appliance in production of each year and also each 100th appliance out of an appliance family (as specified in the relevant standards). - The inspection of on-site assembled appliances that are delivered in parts may take place on site. - The difference in the leakage rate between the reference appliance and the leakage rate of actual produced appliance shall not exceed the following tolerance range: <ul style="list-style-type: none"> - +2m³/h or +10% - -4m³/h or - 20% - See calculation according to annex F <p>NOTE: RLUA with cross national building approval meets these requirements</p> <p>→ Submission of annex B → Submission of text report</p>