



Status 03.11.2015

Control components in the context of HKI-quality label for recognition of testlaboratories for solid fuel burning appliances in respect of the following standards:

- EN 13229
- EN 13240

Remark: All requirements of drafts are included that satisfy the best available technology but that were not published as a standard with CEN due to the standstill agreement.

The requirements to error limits of measuring instruments in the standards are partially different. If reasonable, there was a standardization having regard to the best available technology (e.g. considering prEN 16510-1:2015)

The purchaser indicates the test standards he wants to be certified for at the testing laboratories.



Accreditation report for test laboratories for solid fuel burning appliances in the context of HKI-quality label

HKI-quality label	Characteristics / measurement uncertainty	calibration	DIN EN 13229	DIN EN 13240	Certification of the testing laboratory Date / signature (tester)
Expert discussion with the management of the testing laboratory and its employees	Expertise proofed				
Documents					
QM-handbook of the testing laboratory	existing				
Questionnaire for recognition of the testing laboratory for the HKI-quality label	complete				
Confirmation of the professional independence of instructions of the testing laboratory	signed				
Organigram to embed the testing laboratory into the company's structure	attached				
General testing mechanisms					
Test room with water- and electrical power supply	Well ventilated, draught-free ($v_{air} < 0,5m/s$), surrounding temperature $\approx 20^{\circ}C$, no influence of solar radiation or nearby test procedures	no			
Test hearth, test wall, test room according to standard or comparable set-up	existing	no			
Measurement section for performance and safety according to standard and emission measurements	existing	no			



HKI-quality label	Characteristics / measurement uncertainty	Calibration	DIN EN 13229	DIN EN 13240	Certification of the testing laboratory Date / signature (tester)
Test chimney for natural flue draught	existing / not necessary	no			
adapter between fireplace and horizontal /vertical measurement section according to standard	existing	no			
Test instruments for determination of water output according to standard	existing / not necessary	no			
Data collection system for documentation according to standard	existing	no			
Test fuel					
- profiled (artificial) wood	Fuel analysis is done	no			
- wood logs	Fuel analysis is done	no			
- wood pellets according to DIN EN ISO 17225	Fuel analysis is done	no			
- lignite briquettes	Fuel analysis is done	no			
Further mineral fuel	Fuel analysis is done	no			
- ...	Fuel analysis is done	no			
- ...	Fuel analysis is done	no			
Measuring instruments					
Measuring instrument to test the dimension of the fireplace and the safety distance	Sliding calliper for material thickness +/- 0,1 mm Metering rule +/- 1 mm	yes			



HKI-quality label	Characteristics / measurement uncertainty	Calibration	DIN EN 13229	DIN EN 13240	Certification of the testing laboratory Date / signature (tester)
Time measuring device	existing	yes			
Fuel charging ≤ 7,5 kg > 7,5 kg	± 5 g ± 10 g	yes			
Fuel consumption	± 20 g	yes			
Residue	± 5 g				
Measuring instrument to determine the water content in the test fuel wood log	1 %	yes			
Flue draught measuring instrument	≤ 2 Pa	yes			
O ₂ - Measuring instrument	± 5% of the measurement reading or ± 0,4 % (the higher value is essential) ¹	yes			
CO ₂ - Measuring instrument	± 5 % of the measurement reading or ± 0,4 % (the higher value is essential) ¹	yes			
CO- Measuring instrument	± 10 % of the measurement reading or ± 10 ppm (the higher value is essential) ¹	yes			
flue temperature measuring device	≤ 5 K	yes			
surface temperature measuring device	≤ 2 K	yes			
room temperature measuring device	≤ 1,5 K	yes			



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water temperature measuring device(water heat output)	$\leq 0,5 \text{ K}$	yes			
Flow measuring device; cross flow	$\leq 0,2 \text{ m/s}^1$	yes			
Water flow	$\leq 5 \text{ kg/h}$ for appliances with a water flow rate lower than 500 kg/h	yes			
NOx-measuring instrument	$\pm 5 \%$ of the measurement reading or $\pm 15 \text{ ppm}$ (es gilt der höhere Wert) ²	yes			
C _n H _m -measuring instrument	$\pm 10 \%$ of the measurement reading or $\pm 5 \text{ ppm}$ (the higher value is essential) ²	yes			
PM measuring device (measuring procedure according to A.1.2 of TS 15883) ² - gas flow measuring device - temperature measuring device for gas flow - temperature measuring device for filter holder - air pressure outside - difference pressure gauge - scale for filter weighing	$\pm 2 \%$ of the sample volume $\pm 2 \text{ K}$ $\pm 2 \text{ K}$ $\pm 1 \%$ of the measured value $\pm 1 \text{ Pa}$ $\pm 0,5 \text{ mg}$	yes			

¹⁾ In deviation to hEN 13249 the measurement uncertainty has been chosen from prEN 16510.

²⁾ Additional to hEN there have been chosen requirements from prEN 16510.