Laboratory Recognition Questionnaire for household washing machines

Name of the Laboratory responsible	Give the title and name of the laboratory responsible who will sign the testing report	
Part 1: Introductory elements	to be signed by the Laboratory responsible before filling in the Questionnaire	
I <*laboratory responsible*> hereby declare under my responsibility that:		
a	The laboratory is not owned by a household appliance manufacturer.	
b	The laboratory is willing to take part to the selection procedure of the verification action.	
c	The laboratory will use English in all communications within the verification action.	
d	I accept an audit to our laboratory, with our attendance, by an expert delegated by the ATLETE II project Team and/or by a representative of the manufacturer(s) of the appliance unit(s) under test.	
e	The laboratory is able to test automatic washing machines according to EN 60456:2011 and related standard(s)	
f	All necessary standard consumables for testing household washing machines of each load capacity are available to the Laboratory	
g	The supply voltage to each tested appliance is kept stable within (230 ± 1%) V or better.	
h	The supply frequency to each tested appliance is kept stable within (50 ± 1%) Hz or better.	
i	The temperature of the laboratory supply water to each tested appliance is within 15°C ± 2 K during the testing.	
j	The static (gauge) pressure of the laboratory supply water at the inlet to each tested appliance is kept stable within (240 ± 50) kPa throughout the test.	

k	The temperature of the test room(s)/site(s) is within 23°C ± 2 K during the testing of the washing machines.
l	The total hardness of the water used for the washing machine testing is (2,5 ± 0,2) mmol/l
m	The laboratory checks the ratios of a new batch of the stain test strips delivered to the laboratory
n	The laboratory has tested automatic horizontal axis washing machines in the last 4 years and we will provide you detailed information on the number of tests per year.
o	We will provide you a recent (anonymous) example of a test report for a automatic horizontal axis washing machine with the appliance load scheme and including the chart (i.e. the plot or the numerical data) of the records for the parameters measured under EN 60456:2011 for the energy labelling delegated Regulation 1061/2010/EU and the ecodesign Regulation 1015/2010/EU.
p	We will provide you an example of a recent (i.e. not older than three months) 24h record of the test room/site temperature.
q	We will provide a complete list and the latest calibration certificates of the measuring instruments.
r	We will report the tests results on washing machines according to the ATLETE II template test report (if any) and through our usual test report.
s	The laboratory has the capability and we accept to store all the washing machine units that will be assigned to the laboratory for the compliance verification
t	We enclose as an Annex our feedback to the Questionnaire.
	Date: ……. Signature: ……..

NOTE: If any of the above statements a-t can not be agreed upon by signing by the Laboratory responsible please do NOT continue with the compilation of the Questionnaire.

Part 2: Laboratory Questionnaire		to be filled in by the Laboratory responsible	
	Questions	Notes	Answers
1	**General aspects**		
1.1	What is the legal status of your laboratory?	State-owned, owned by a NGO Consumers' Association, private,...	
1.2	How many people are employed in your lab for testing appliances (excluding management, administrative, etc)?		
1.3	Is your laboratory certified in accordance to ISO or EN Standards?	ISO 17025, and/or EN 45001 and/or ISO 9000 or similar	
1.3.1	If yes since when?		
Please add certificates and documents of latest renewal			
1.4	Please describe the background education of the personnel who will perform the tests and the training, if any, done at the laboratory		
1.4.1	Is re-training foreseen for (major) changes in test conditions?	For example due to new Editions of ISO, IEC, EN standards	
1.5	How long is on average in your laboratory a test (see Annex for the details) for washing machines according to EN 60456:2011?		
1.6	How many different people can perform the tests on washing machines?		
1.7	Please indicate if you already took part to any Round Robin Test or Proficiency Tests for the product concerned by this project.	yes/no	
If yes, please add relevant documentation (references) of the RRT(s)			

	Questions	Notes	Answers
1.8	Do you have a documented operating procedure on application of uncertainty of measurement?	Based on e.g. ISO/IEC GUM, Guide to Expression of Uncertainty in Measurement, IEC Guide 115, or similar	
If Yes, please provide a copy			
1.9	Do you have documented internal 'good laboratory practices procedures' for the measurement of the products concerned by this analysis?	e.g explaining the need and the procedure to control the standard load age, the need and frequency of the calibration of the measurement system, the way to assure to correctly run the tests, etc.	
1.9.1	Does the internal 'good laboratory practices procedures' specifically addresses the management of partial loads?	If yes, please describe this section in detail	
If yes please add all relevant documentation			

	Questions	Notes	Answers
2	**Measurement equipments**		
2.1	Which type of equipment and relevant tolerances do you use to measure the temperature?	according to EN 60456:2011	
2.2	Which accuracy (in K) have the ambient temperature meters in the used range/setting?	according to EN 60456:2011	
2.3	Which accuracy (in K) have the inlet water temperature meters in the used range/setting?	according to EN 60456:2011	
2.4	Which accuracy (in Wh) have the energy meters in the used range/setting?	according to EN 60456:2011 and EN 62301:2011	
2.5	Which accuracy (in %) have the water pressure meters in the used range/setting?	according to EN 60456:2011	
2.6	Which accuracy (in %) have the voltage meters in the used range/setting?	according to EN 60456:2011	
2.7	What scan interval do you use for the test room ambient temperature?		
2.8	What scan interval do you use for the water inlet temperature?		
2.9	What scan interval do you use for water pressure?		
2.10	What scan interval do you use for energy?		
2.11	At which regular intervals are the measurement equipments calibrated?		

	Questions	Notes	Answers
2.12	What is the stability of the supply voltage to each tested washing machine?		
2.13	What is the stability of the supply frequency to each tested washing machine?		
2.14	What recording interval do you use for the test room ambient temperature?		
2.15	What recording interval do you use for the water inlet temperature?		
2.16	What recording interval do you use for the water inlet pressure?		
2.17	What recording interval do you use for energy consumption?		
2.18	What recording interval do you use for water consumption?		
2.19	Which type of spectral photometer are you using for reading the test strip?		
Specify supplier and model			

	Questions	Notes	Answers
3	**Reference machine and consumables**		
3.1	Which type of **Wascator reference machine** is used in your laboratory?	FOM 71 MP lab or FOM 71 CLS	
3.1.1	is the Wascator reference machine operated under stabilized voltage supply?		
3.2	When was the last maintenance of the Wascator reference machine developed?	Please provide the calibration protocol	
Please provide the protocol of the last maintenance			
3.2.1	In this respect, was the inlet water pressure checked?		
3.2.2	and was the filling time requirement from the maintenance document used?		
3.3	Who is the supplier of **stain test strips** used.	Please provide the name	
3.3.1	What is the batch number of stain test strips used in 2012?	Please provide the list	
3.3.2	Are you using the measured ratios of new batches of stain test strips delivered to the laboratory as a general qualification criteria for the test system within the laboratory?	Please describe in particular the actions if the measured ratios in your laboratory are not in line with those given in EN60456:2011	
3.3.3	Where and how are the stain test strips stored (refrigerator, freezer, ambient, dark place, etc.) before use?	Please describe in detail	
3.4	Who is the supplier of **base load** used in your laboratory ?	Please provide the name	
3.4.1	Which washing machine are you using for the for pre-treatment / normalization of test loads?	Please describe	

	Questions	Notes	Answers
3.4.2	How is conditioning of base load done: in a climate chamber or with the bone dry method?	Please describe the procedure	
3.4.3	If bone dry method is used, is the laboratory equipped with a large capacity dryer with manual or timer control? Is this dryer electricity or gas driven?	Please describe the used dryer	
3.4.4	If bone dry method is used, is the coefficient to link bone dry weight to conditioned weight measured?	Please describe the procedure	
3.4.5	Is a full record available of the history of each item of the standard load for the number and type of usages?	Please describe	
Please describe your system and provide an example (copy or a printout) of the recording			
3.4.6	Which system are you using for the conditioning of the base load in the ambient controlled room/chamber?		
3.4.7	Provide a report covering the latest available 6 months period with all data for the conditioning of the loads used for Wascator runs.		
3.5	Who is the supplier of **detergent** used for washing machine test?	Please provide the name	
3.5.1	Provide batch number of standard detergent components used in 2012.	Please provide the list	
3.5.2	Where are the detergent components kept for storage?	Please describe	

	Questions	Notes	Answers
4	**Test room and ambient controlled room/ chamber**		
4.1	How many test rooms do you have in your Lab for testing washing machines?		
4.2	How many appliances can you test at the same time in each room?		
4.3	How many appliances are you able to test in total at the same time?		
4.4	What is the humidity range of your ambient controlled room or chamber?		
4.4.1	How frequently are you measuring it?		
4.5	What is the temperature range of your ambient controlled room or chamber?		
4.5.1	How frequently are you measuring it?		
Please deliver at least three pictures (made anonymous) of a previous measurement: - test washing machine measurement place with the set up for testing; - an appliance prepared for tests according to EN 60456:2011			

	Questions	Notes	Answers
5	**Test experience**		
5.1	In which standardisation activities relevant for washing machines is the personnel of your laboratory actively involved? Please specify the Standardisation body, the relevant TC or SC and the WG(s)		
5.2	How long is your experience in performing tests on washing machines? Please provide evidence		
5.3	How many washing machines have you tested in each of the last 4 years in your laboratory as far as performances according to EN 60456 is concerned? Please provide detailed info	according to EN 60346:2011 and/or the previous Editions of the standards	
5.3.1	How many washing machines (energy consumption) have you tested in the last 4 years in your laboratory?	according to EN 60346:2011 and/or the previous Editions of the standards	
5.3.2	How many washing machines (washing performance) have you tested in the last 4 years in your laboratory?	according to EN 60346:2011 and/or the previous Editions of the standards	
5.3.3	How many washing machines (spinning performance) have you measured in the last 4 years in your lab?	according to EN 60346:2011 and/or the previous Editions of the standards	

Part 3	Documentation	Test reports and recordings to be provided
1	Please provide an example of a test report on a test according to EN 60456:2011, the report may be made anonymous	
2	**On a voluntary basis**: please provide an example of a test report on a test according to the previous Edition of the standard EN 60456:2005, the report may be made anonymous	
3	Please provide an example of a record of the test room temperature and climatic chamber (if used for the conditioning of the load) temperature and humidity	
4	Please provide a complete list and the latest calibration certificates of the measuring instruments and of the reference machine	