

THE EUROPEAN WATER LABEL

INDUSTRY SCHEME



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1.0 INTRODUCTION

1.1 FACTS

Wholesome water shortages and security of water supply have always been important concerns in parts of the world and in some parts of Europe. Climate change and the increasing need for environmental protection, natural resources preservation and efficient use, the availability of wholesome water and patterns in water consumption is now a concern for all, and are set to be a priority of the European water policy over the coming years.

In terms of water efficiency and savings, the European Commission Environment Directorate General study on water efficient standards¹ (July 2009) estimated that showers and taps contribute to 33% and 10% of average household water use respectively. Replacing all standard residential water using equipment (taps, toilets, showers, bath tubs, washing machines, dishwashers and outdoor products) with water efficient products would result in an overall decrease in yearly domestic water consumption of around 32% or 40.716 litres for a European Union (EU) household.

1.2 CONTEXT

Many initiatives have been developed in the past 10-15 years to address efficiency of water-using products at national and international levels.

In the EU, concerns on water efficiency of water-using products have recently been highlighted in the context of water scarcity and droughts and Eco design approaches. The European Commission has developed Ecolabel and Green Public Procurement (GPP) criteria on water using products with the aim of awarding the label to the most efficient products..

Industry is constantly improving the performance of its products in terms of water consumption and comfort. It is doing so while strictly applying national and European essential health and safety requirements, responding to consumer growing demands for environmental preservation, and respecting minimum users' comfort.

Taking the view that the EU consumer today lacks consistent information on the performance and water consumption of these basic products, CEIR and FECS members, together with national bathroom trade bodies representing many hundreds of manufacturers, have developed a simple and harmonised water labelling Scheme – the European Water Label.

This Scheme initially applies to water using bathroom equipment.

1.3 OBJECTIVES AND CHARACTERISTICS

- Inform European consumers on water consumption of bathroom products and accessories
- Promote the use of water 'efficient' products and accessories
- Develop a simple classification scheme applicable throughout the EU, Israel, Norway, Switzerland, Russia, Ukraine and Turkey

¹ http://ec.europa.eu/environment/water/quantity/pdf/Water%20efficiency%20standards_Study2009.pdf

- Set common requirements applicable throughout the EU, Israel, Switzerland, Russia, Norway, Ukraine and Turkey markets while conforming to any legal national requirements
- Set a voluntary, cost-efficient and flexible tool which aims at monitoring and adapting to the market evolution of water 'efficient' products
- Is open to all bathroom products and accessories manufacturers placing their products on the EU, Israel, Switzerland, Russia, Norway, Ukraine and Turkey markets

2.0 PRINCIPLES AND SCHEME

2.1

This Scheme sets the main principles which all signatories commit to follow while supplying products and accessories (as defined under point 3) on the EU, Israel, Norway, Switzerland, Russia, Ukraine and Turkey markets. The manufacturers and signatories of this Scheme recognise that:

- Water is an essential natural resource which must be preserved
- Water 'efficient' water using products can help mitigate water and energy consumption while maintaining safety and comfort
- Minimum harmonised products criteria should be set to guarantee fair and simple information of the user.

2.2.

The manufacturers of bathroom products and accessories joining this Scheme commit to:

- Engaging with the various efforts to save water and energy, thereby protecting the environment and reducing costs for the users of products
- Promote the considered use of water from water using products in the EU, Norway and Israel, Switzerland, Russia, Ukraine and Turkey by informing the users about the water consumption of these products, and participate to the reduction of water waste
- Develop a voluntary, simple and common classification scheme to allow implementation in all EU, Israel, Norway, Switzerland, Russia, Ukraine and Turkey countries
- Invite all interested manufacturers of bathroom products and accessories placing their products on the EU, Israel, Norway, Switzerland, Russia, Ukraine and Turkey markets to join this Scheme
- Maximise the effectiveness of the labelling scheme by promoting it and monitor its implementation
- Cooperate with the competent European bodies and other interested parties to optimise information and promote the scheme widely in the EU, Israel, Switzerland, Russia, Norway, Ukraine and Turkey.

2.3

The signatories of this Scheme are expected to meet the requirements of the Scheme

The signatories commit themselves to:

- Label all listed products for which the signatory has applied and been granted labelling authorisation in accordance with application procedure set out under point 4, as soon as possible or within 6 months after this authorisation, and in full accordance with the requirements set hereunder. The label (see Annex 2) can appear either on the product or on the packaging, but also on the marketing and/or technical literature, on the manufacturers' website or any combination.
- Fulfil and declare fulfilment of the national legal requirements where the product is marketed, as well as the European and/or national standards when applied (See Annex 4).
- Meet the stated classifications for the appropriate category referred to in Annex 1.
- Raise awareness about the water and energy efficiency of these products assisted by the European Water Label.
- Cooperate with the European Water Label operator for the products auditing system and the completion of the monitoring report on the progress of implementation of this Scheme and the Label, in accordance with the procedures set out under points 5 and 6.

2.4

This Scheme and label aim at simplicity and efficiency. It concentrates on the water consumption of water using products, bearing in mind that any savings of water will in turn lead to energy savings and a reduction in carbon dioxide emissions.

The Scheme respects national legal requirements where the product is marketed, as well as the European and/or national standards when applied.

The use of products in the water distribution system should suitably be combined with water quality and hygiene requirements. Advice and assistance of a local professional installer should be sought to ensure that the complete water system conforms to applicable regulations, and is installed for optimal performance in terms of comfort, water and energy efficiency.

3.0 PRODUCTS, DEFINITIONS AND GUIDE TO TESTING

3.1 GENERAL

There are a number of methods of designing in to products, flow or flush limitation, regulation or optimisation and the European Water Label (EWL) recognises this. However, prospective listees are reminded that whichever method of flow control is employed the EWL operates on a basis that details the maximum flow or flush available for the rating of the listed product i.e. all tolerances of flow or flush control methods must be within the stated flow rate or flush volume of the listed product. Products that are listed without the incorporation of tolerance values risk failing audits and therefore being removed from the Scheme.

Applicants are reminded that:

Products submitted for approval will comply with all relevant National Regulatory requirements of the country of intended destination. Devices used to measure distance, flow rate, volume and pressure shall have calibration records that are traceable to National Standards.

3.2 SHOWERS

Shower Controls

Shower controls commonly fall into two distinct sections; products that mix hot and cold water together to deliver a blended water supply to the user (commonly known as mixing valves or mixer showers) and product that instantaneously heats a single cold supply on a demand basis to deliver the heated water to the user (commonly known as electric showers).

Mixer Showers

Mixer Showers are complex products. Manufacturers follow differing philosophies concerning methods of controlling flow rates. Most commonly, these include specifying limitations on the supply pressures, or the incorporation of flow limiting devices which can be located either in the mixer shower itself – or in the shower hose/outlet or handset. As might be expected, manufacturers have differing views concerning which method is most suitable. The Scheme accommodates these differing positions by including alternative methods of test.

All mixer showers that deliver water at a single showering position under pressures up to the maximum operating pressure specified by the original manufacturer - or in the case of no maximum being specified, at pressures up to and including 3.0 bar-0/+0.05 bar.

Limitation on Testing

It is a prerequisite of the Scheme that mixer showers shall satisfy all National Regulatory requirements of the intended country of destination.

The product, when verified shall comply with the supplied Declaration of Conformity from the Manufacturer that accompanied the original product applications to the Water Label Company.

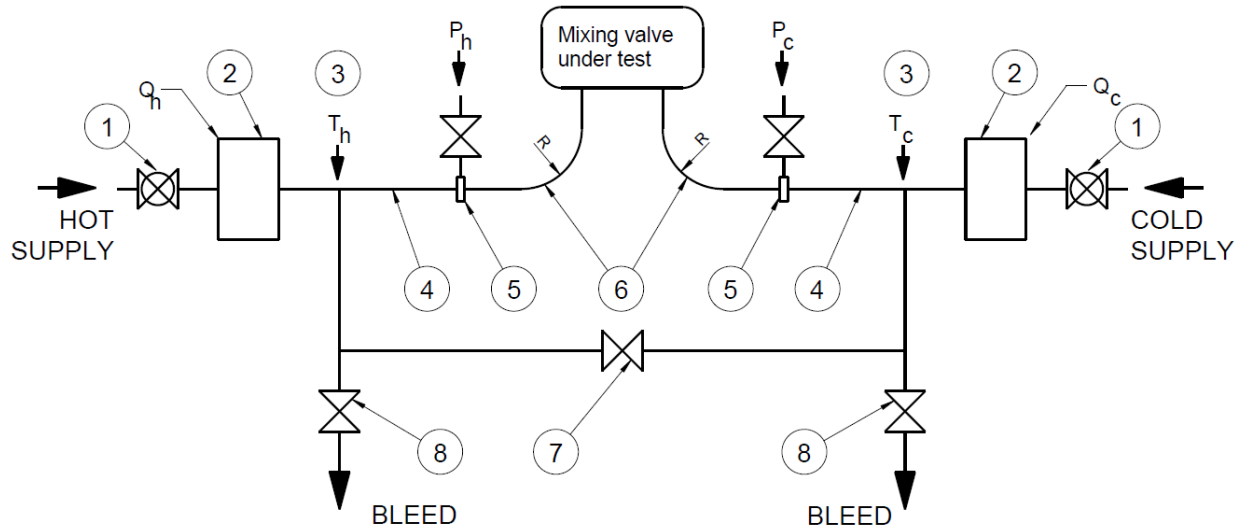
Mixer Showers may consist of various configurations as supplied to the market and shall be tested accordingly:-

- A mixing valve, tested with open outlet;
- A mixing valve, tested with supplied hose (or rigid riser) and outlet(s);
- A bath tub/shower mixer (shower outlet only):-
 - a. tested with open outlet;
 - b. tested with supplied hose (or rigid riser) and outlet(s).

Apparatus

Suitable apparatus and criteria e.g. method of temperature measurement, as detailed in the figure below

Figure.1 Shower controls test apparatus:



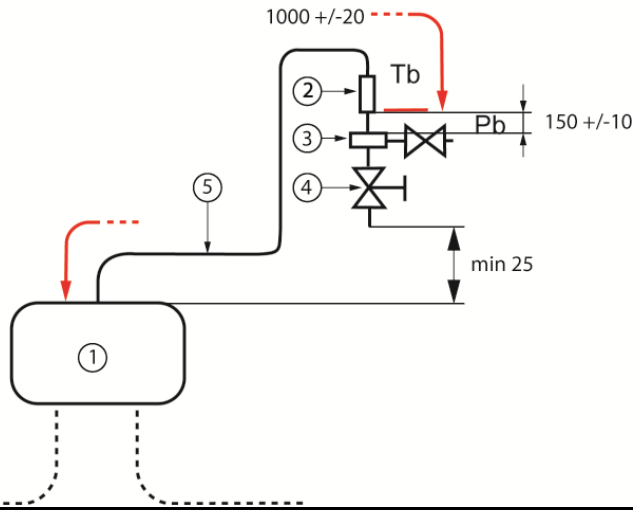
Key

- 1 a quarter turn spherical plug valve in each supply pipe
- 2 a flow meter (Q_h and Q_c). In each supply pipe
- 3 provision to accommodate two temperature measuring devices (T_h and T_c)
- 4 straight piping, of the same nominal bore as the inlet connection of the mixing valve and of length 250 ± 10 mm between the temperature measuring devices and the pressure take-off tees (5)
- 5 pressure take-off tees complying with Figure 1 and of the same nominal size as the piping (4)
- 6 piping of the same nominal bore as the inlet connection of the mixing valve under test and of length 300 ± 10 mm. Only bends of radius $R > 4 \times$ the bore of the pipe are permitted in this pipe, and the bends shall not total more than 90°
- 7 cooling flow stop valve
- 8 bleeding valve

The setup of the copper pipework is shown in Figure 1 and incorporate:

- a) Thermocouple housing (provision to accommodate a temperature measuring device (2)) in either housing a type J, type T or type K thermocouple in accordance with EN 60584 (all parts);
- b) A pressure measuring device (5) as per the valve's designation e.g DN15, DN20 etc...

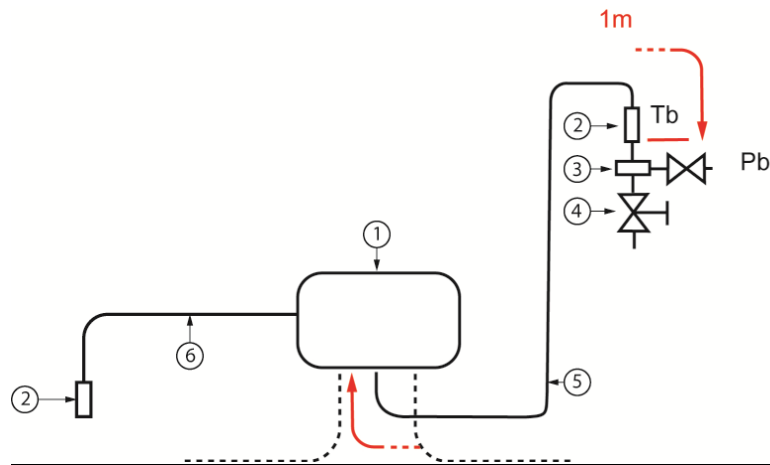
Figure .2 Shower control with top outlet



Key

- 1 mixing valve under test
- 2 temperature measuring device
- 3 pressure measuring device
- 4 regulating valve
- 5 diameter 15x1 (DN 15) or diameter 22x1 (DN 20)

Figure .3 — Shower control with bottom outlet



Key

- 1 mixing valve under test
- 2 temperature measuring device
- 3 pressure measuring device
- 4 regulating valve
- 5 shower outlet
- 6 outlet

Procedure

Connect the mixing valve to the apparatus specified above:

- In the case of mixer showers not limited to low pressure applications only and with flow limiting devices located in either the inlets or in the outlet, the test is to be conducted with 'open outlet' i.e. no hose or shower outlet attached. However, the 'outlet pipework' detailed in figure 2 or figure 3 shall be connected to simulate the flow restriction of a shower hose and outlet.
- In the case of mixer showers not limited to low pressure applications only and with a flow limiting device located in the shower hose or outlet or handset - the dedicated shower hose (or rigid riser) and dedicated shower outlet shall be attached.
- In the case of mixer showers designed for low pressure applications only, the dedicated shower hose(s)/outlet(s) specified by the manufacturer shall be attached and the maximum pressure specified by the manufacturer shall be applied.
- In the case of Bath tub /Shower combination tap assemblies, only the flow rate to shower is measured.

Mixer Showers Tested with 'Open Outlet' ⁽¹⁾

Fully open the flow control of the mixing valve and tap (3) of the 'outlet pipework' See figure 2 or figure 3.

Apply a 3 -0/+ 0.05 bar pressure to both the hot and the cold inlets.

Adjust the mixed water temperature to 42 ± 1 °C.

Adjust the tap (3) to give a 1 ± 0.05 bar pressure loss (to replicate a shower hose and shower /outlet).

Under steady and constant flow conditions measure and record the mixed water flow rate.

Mixer Showers Tested with Dedicated Shower Hose and Outlet ²⁾

Fully open the flow control.

For mixer showers that are not limited to low pressure applications only - apply a 3 -0/+ 0.05 bar pressure to both the hot and the cold inlets, alternatively;

In the case of mixer showers that are limited to low pressure applications only – apply the maximum pressure specified by the manufacturer to both the hot and the cold inlets.

Adjust the mixed water temperature to 42 ± 1 °C.

Under steady and constant flow conditions measure and record the mixed water flow rate.

Requirement

The flow rate shall be recorded:

¹⁾ Mixer showers tested with 'open outlet' may deliver a different flow rate in use with a shower hose & outlet fitted. It is anticipated this difference will be minimal.

²⁾ Testing with a dedicated shower hose and dedicated shower outlet means that in the event of a shower hose or shower outlet having to be replaced, the components must be replaced on a like for like basis. Failure to do so may create a safety hazard and the requirements of the

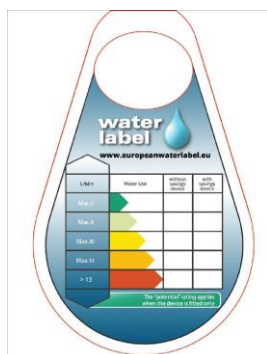
scheme may no longer be satisfied - and approval invalidated. This must be made clear within the installation and maintenance instructions.

Product will be further sub-divided into the following bands allowing for the fixing of the Scheme Enhanced Label to the product. The flow rate quoted on the label and website shall be quoted to one decimal place.

Flow rate (litres per minute)
6.0 litres or less
8.0 litres or less
10.0 litres or less
13.0 litres or less
Greater than 13.0 litres

Where products are supplied to the market with flow regulator (or limiters etc.) fitted to the product then the product shall be tested and listed at the flow rate determined from the 'as delivered' state.

Where products are supplied with flow regulators 'in the box' then the product can be tested and listed as a low pressure product with testing conducted at the appropriate declared maximum working pressure; or the product is tested and listed as if the flow regulators were fitted to the product but in this case the flow regulators must be attached to the product in the box by use of the official 'neck leaflet' to highlight to the installer the need to fit the flow regulators. The label is shown below:



Electric Showers

Electric Showers are complex products. However the principles of the design of electric showers across all manufacturers are essentially the same. For the purposes of this Scheme all electric shower controls will comprise of a shower handset, flexible hose and shower (heating) unit.

Limitation on Testing

Electric showers deliver hot water at a flow rate as a function of their design primarily based upon the energy rating of the heating element contained within the shower (heating) unit. The flow rate is further affected by incoming water temperature and the desired set temperature of the outlet water. The relationship of all these factors is identical for all designs of electric showers. Physical testing is therefore not needed to validate the flow rates of these products. A mathematical calculation will therefore be employed for validation of flow rates for all electric showers as part of this Scheme.

Procedure

Formula for flow rate calculation:-

Flow rate l/m = $((60 * (((\text{Operating Voltage} / (240 / (\text{Nominal kW rating} / 240) * \text{Operating Voltage}))) / 4.18 * (\text{outlet temperature} - \text{inlet temperature}))))$

For further calculation can be downloaded from the website from the following link:

<http://www.europeanwaterlabel.eu/energycalculation.asp>

To further 'commonise' the parameters used for the calculation the inlet temperature and outlet temperature values are selected to be mid-values that essentially cover seasonal variation between winter and summer operation of these products.

For the purposes of this Scheme, the following seasonally adjusted values shall be:-

- Outlet set temperature 42°C;
- Inlet supply temperature 15°C;
- In all cases the operating voltage shall be 240 volts.

The calculation method validates all existing known electric shower products as 'eco' or 'low flow' i.e. less than 6 litres per minute.

E.g. 7.0 kW nominal rating at 240V will calculate to 3.72 l/m
8.0 kW nominal rating at 240V will calculate to 4.25 l/m
9.0 kW nominal rating at 240V will calculate to 4.78 l/m

Products complying with these requirements will be able to use the 'recommended' European water label see below:



3.3 SHOWER OUTLETS

General

Shower outlets commonly fall into a number of categories usually based on their configuration e.g. flexible showerheads (also known as hand showers or handsets) that are designed to be fitted to a flexible shower hose; fixed showerheads (also known as head showers) that are designed to be fitted to a rigid pipe (rigid riser) rather than a flexible shower hose and body jets, which as one would expect are designed to deliver water to the body, typically in a horizontal fashion rather than a vertical fashion as in the case with hand and head showers. Outlets are designed to enable the formation and delivery of a suitable water spray to the end user.

In all cases showerheads are devices used for ablutionary purposes which allows water to be emitted in the form of jets or water droplets (EN 1112: 2008).

Hand showers

Shower handsets are moveable hand held shower outlets which are connected to the sanitary tap ware via a flexible shower hose. They can be hung directly on the tap ware or on the wall with the aid an appropriate



support. The outlet itself can be either single or multi-mode spray patterns.

The outlet will have a nominal flow rate recorded at all showering positions under pressures up to the maximum operating pressure specified by the original manufacturer – or in the case of no maximum being specified, at pressures up to and including 3 bar - 0/+0.05.

Head Showers and Body Showers

Shower heads are fixed overhead shower outlets which direct water onto the user from above. Body showers are shower outlets fixed to a vertical wall and direct water laterally onto the user).



Limitation on Testing

It is a prerequisite of the Scheme that shower handsets shall satisfy all National Regulatory requirements. These are detailed in various National Regulations, some of which - with particular reference to water and its use, are referenced in the Scheme's documentation.

It follows, that testing under the Scheme is limited to verifying only, that the flow rate(s) claimed by the manufacturer comply with the requirements of the Scheme.

Apparatus

A suitable supply system capable of delivering cold water at a dynamic pressure of 3 - 0/+0.05 bar for the duration of the test.

Suitable apparatus is described in clause 11.2.3 of EN 1112: 2008 with the exceptions that the cold water supply system shall be capable of delivering the pressure specified above for the duration of the test.

The datum used shall be appropriate for the type of handset being tested – i.e. for head showers the datum of the spray plate shall be level while for shower handsets (those typically connected via flexible shower hoses) the datum of the spray plate shall be at 45° to level. In all cases the handset must form a full spray pattern in all available spray modes.

Procedure

- The dynamic pressure shall be applied gradually to the inlet of handset.
- The flow rate under stable and continuous flow conditions shall be recorded.

Requirement

The flow rate of the highest available flow mode shall be recorded.

Product will be further sub-divided into the following bands allowing for the fixing of the Scheme Enhanced Label to the product. The flow rate quoted on the label and website shall be quoted to one decimal place.

Flow rate (litres per minute)
6.0 litres or less
8.0 litres or less
10.0 litres or less
13.0 litres or less
Greater than 13.0 litres

Where products are supplied to the market with flow regulator (or limiters etc.) fitted to the product then the product shall be tested and listed at the flow rate determined from the 'as delivered' state.

Where products are supplied with flow regulators 'in the box' then the product can be tested and listed as a low pressure product with testing conducted at the appropriate declared maximum working pressure; or the product is tested and listed as if the flow regulators were fitted to the product but in this case the flow regulators must be attached to the product in the box by use of the official 'neck leaflet' to highlight to the installer the need to fit the flow regulators.

3.4 TAPS

General

Taps are available in many configurations from pillar taps which are designed to deliver either a hot or cold supply only to mechanical and thermostatic products that are designed to deliver a blend of hot and cold water through the same outlet or divided flow type outlet. Taps can be manually opening and closing or self-closing via mechanical or electronic means. They can be installed to deliver water to washbasins, bidets or kitchen sinks.

Automatic valves which allow water to be drawn off for use may be of a type that is:

- Manually opened, but which closes automatically giving a set period of flow. The period of flow may be adjustable at the time of installation.
- Electronically opened and closed valves, actuated by a system that detects the presence of a user. Such systems may be of touch, or touch less (hands free) operation. The period of flow may be pre-set at the time of installation, or constant, whilst user presence is detected.

All taps (including self-closing and electronic types) and combination tap assemblies - for use with wash basins, bidets and sinks under pressures up to and including 3 bar - 0/+0.05. In the case of combination tap assemblies, each side of the fitting shall be tested separately.

Note 1: In the case of combination tap assemblies with both sides fully opened:

- Divided outlet types - will provide a flow rate that equates to the combined flow rate through each inlet
- Single outlet types - are unlikely to provide a flow rate that will equate to the combined flow rate through each inlet.

Note 2: In the case of taps (all types) and combination tap assemblies supplied with interchangeable outlets:

- Compliance with the Scheme's requirements is based upon the 'as approved' specification. The manufacturer shall clarify in installation instructions whether the Scheme's criteria is invalidated if an alternative outlet is fitted e.g. Scheme compliant as approved - with aerator fitted, but approval invalidated if a flow regulated aerator is fitted or removed.

This Scheme does not cover taps intended to be used to fill bath tub.

Limitation on Testing

It is a prerequisite of the Scheme that taps and combination tap assemblies shall satisfy all National Regulatory requirements for the country of intended destination. These are defined in

various National Regulations, some of which – with particular relevance to water and its use, are referenced in the Scheme documentation.

It follows that testing under the Scheme is limited to verifying only, that the flow rate(s) claimed by the manufacturer comply with the requirements of the Scheme.

Apparatus

A suitable supply system capable of delivering cold water at a dynamic pressure of 3 - 0/+0.05 bar for the duration of the test.

Suitable apparatus is described in clause 10.2.2 of EN 200: 2008 – with the exceptions that pressure gauges may be substituted for manometers and the cold water supply system shall be capable of delivering the pressure specified above for the duration of the test.

Procedure

The procedure described in clause 10.2.3 of EN 200: 2008 shall be followed, with the exceptions that:

- The dynamic pressure applied to each inlet of taps for installation in both Type 1 and Type 2 water supply systems shall be 3 - 0/+0.05 bar.
- In the case of taps that are limited to low pressure applications only – apply the maximum pressure specified by the manufacturer to both the hot and the cold inlets.
- The pressure shall be applied gradually.
- For combination taps with divided outlet (mains fed on cold inlet) it is essential that such taps are connected to mains water supply capable of maintaining a minimum flow pressure of 0.4 bar through the cold side.
- The flow rate under stable and continuous flow conditions shall be recorded.

Requirement

The flow rate shall be recorded as a 'flow to sink', 'flow to basin' or 'flow to bidet' expression i.e. for combination tap assemblies the maximum flow rate available and for pillar taps the maximum flow rate available as a calculation of the combined flow from both the cold and hot taps.

Product will be further sub-divided into the following bands allowing for the fixing of the Scheme Label to the product. The flow rate quoted on the label and website shall be quoted to one decimal place.

Flow to basin or sink (litres per minute)
6.0 litres or less
8.0 litres or less
10.0 litres or less
13.0 litres or less
Greater than 13.0 litres

Where products are supplied to the market with flow regulator (or limiters etc.) fitted to the product then the product shall be tested and listed at the flow rate determined from the 'as delivered' state.

Where products are supplied with flow regulators 'in the box' then the product can be tested and listed as a low pressure product with testing conducted at the appropriate declared maximum working pressure; or the product is tested and listed as if the flow regulators were fitted to the

product but in this case the flow regulators must be attached to the product in the box by use of the official 'neck leaflet' to highlight to the installer the need to fit the flow regulators.

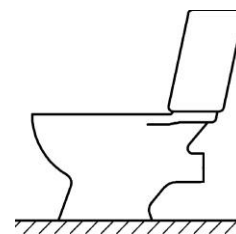
3.5 WATER CLOSETS (WCs)

General

WC is a term that is generally applied to facilities intended for the removal of human waste. It is a colloquial term that is often used as blanket terminology for any part or component of the toilet suite. In fact there are subdivisions of product into WC pans, flushing cisterns and tested combinations of pans and cisterns known as suites.

WC Suites

A sanitary appliance that consists of a WC pan/flushing cistern combination with associated fittings that has been tested and complies with Class 1 suites (clause 5.5 of EN 997: 2012) or Class 2 of EN 997: 2012.



WCs complying with the requirements of Class 1 (clause 5.5) or Class 2 (clause 6) of EN 997: 2012, when flushed with the volume(s) claimed – shall be verified - based upon a ratio of 3 short flushes to 1 full flush for dual flush WCs or by the average of 4 flushes for single flush WCs.

Limitation on Testing

It is a prerequisite of the Scheme that WC suites and their internal components shall satisfy all Regulatory requirements of the intended country of destination. E.g. only Class 2 products will be able to be listed for the UK market as this requirement is covered by UK Water Regulations.

The product, when verified (flush volume tested in accordance with the details in EN 997: 2012 for the relevant Class) shall comply with the supplied Declaration of Conformity from the Manufacturer that accompanied the original product applications to the Water Label Company.

Applicants shall hold on file copies of test reports verifying compliance with the relevant aspects of EN 997: 2012 and European Water Label flush volume verification test. Such test reports shall detail the principal components that form the suite and critical dimensions necessary for compliance with the standard e.g. cistern fixing height. During the audit process it may be necessary to provide copies of these test reports.

It follows that testing under the Scheme is limited to verifying only that the flush volumes claimed by the manufacturer comply with the requirements of the Scheme.

Apparatus

The apparatus described in clauses 5.7.5.1.1 and 5.7.5.1.2 for Class 1 suites and 6.17.3.1 for Class 2 suites of EN 997: 2012 shall be used.

Procedure

The procedures described in clauses 5.7.5.1.1, 5.7.5.1.2 and 6.17.3.2 of EN 997: 2012 as applicable shall be followed, with the exception that the water trap seal depth need not be measured.

The volume measured after each flushing operation shall be recorded.

Requirements

The measured volume shall not exceed the claimed nominal value of any quoted flush volume.

For example; for a 6/4 dual flush WC suite, the full flush shall not exceed, at any time the value of 6.00 litres while the part flush volume shall not exceed 4.00 litres.

A calculated average of the 4 flushes (In the case of dual flushing – based on a ratio of 1 full-flush to 3 short-flushes) shall be recorded and detailed on the product listing on the European Water Label database. It is this value along with the nominal full and part flush volumes that can be claimed along with European Water Label listing in product literature and packaging labels etc.

For 'graded' labelling, the nominal average flush volume (3:1 ratio) shall be recorded and displayed on the appropriate label. For consistency, the actual value quoted on the label and website shall be quoted to two decimal places. An example is shown of a 6/4 dual flush WC label.

Average flush volume ratio 3:1 (litres)
3.50 or less
4.50 or less
5.50 or less
6.00 or less
Greater than 6.00

Note: - Since the introduction of the European Water Label, the European Commission has introduced an Ecolabel measure to represent the top 10-20% of lowest flush volume WC flushing devices available on the market.

The testing criteria for the Ecolabel requires product to be tested with the water supply 'live' rather than isolated as detailed in EN 997: 2012, EN 14055: 2010 and UK national law.

However, the actual flush volume of a WC flushing device based on the Ecolabel test requirement will always be higher than that of the flush volume tested in accordance with EN 997: 2012 and EN 14055: 2010. On this basis it is acceptable for manufacturers Ecolabel flush volumes to be quoted for compliance with the European Water Label.

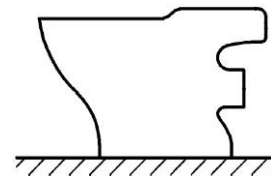
Known National Legislation Caveats

United Kingdom – Class 2 products only (maximum) 6 litre full flush.

The Netherlands – minimum 6 litre full flush.

Independent WC Pans

A sanitary appliance that is an independent WC pan and is intended to be coupled with a suitable independent flushing cistern (compliant with EN 14055: 2010) that has been tested and complies with Class 1 WC pans (clause 5) of EN 997: 2012.



Independent WC pans complying with the requirements of Class 1 (clause 5) of EN 997: 2012, shall be designed for use with and tested using a flush volume of either 4, 5, 6, 7 or 9 litres and when flushed with the volume claimed – shall be verified by the average of 4 flushes.

Limitation on Testing

It is a prerequisite of the Scheme that WC pans and their internal components shall satisfy all Regulatory requirements of the intended country of destination.

The product, when verified (flush volume tested in accordance with the details in EN 997: 2012 for the relevant Class) shall comply with the supplied Declaration of Conformity from the Manufacturer that accompanied the original product applications to the European Water Label Company.

Applicants shall hold on file copies of test reports verifying compliance with the relevant aspects of EN 997: 2012 and European Water Label flush volume verification tests. Such test reports shall detail the WC pan and any critical dimensions necessary for compliance with the standard e.g. cistern fixing height. During the audit process it may be necessary to provide copies of these test reports. Details should also be held that validate the suitability of the WC pan to be used with a known WC cistern flush volume.

It follows that testing under the Scheme is limited to verifying only that the flush volume claimed by the manufacturer comply with the requirements of the Scheme.

Apparatus

The apparatus described in clauses 5.7.2.2 and Annex A or Annex B of EN 997: 2012 shall be used.

Procedure

The procedures described in clauses 5.7.2.2 of EN 997: 2012 as applicable shall be followed, with the exception that the water trap seal depth need not be measured.

The volume measured after each flushing operation shall be recorded.

Requirements

The measured volume shall not exceed the claimed value of any quoted flush volume.

For example; for a 6 litre independent WC pan, the full flush shall not exceed, at any time the value of 6.00 litres.

Manufacturers often validate the WC pan to be used with a number of differing flush volumes. The manufacturer/listing company shall provide to the Scheme, on application, the generic WC cistern flush volumes that any given independent WC pan can be used with. This will be noted in each listing. Manufacturers will also be required to note this information in their product manual and also to indicate that should a larger flush volume cistern be used then the average flush volume will also increase over that detailed on the product and held by the Scheme

The calculated average of the 4 flushes shall be recorded and detailed on the product listing on the European Water Label database. It is this value along with any tolerances that the listing company deems necessary to include that can be claimed as the European Water Label listing in product literature and packaging labels etc.

For 'graded' labelling, the flush volume shall be recorded and displayed on the appropriate label. For consistency, the actual value quoted on the label and website shall be quoted to two decimal places.

Note:- For products that have also been tested in accordance with an independent flush cistern i.e. as a known combination (e.g. a Class 1 suite), the independent Class 1 WC pan can be listed with an average flush volume that takes into account both full and part flush volumes. In cases such as this, the description of the product shall make reference to the flush cistern used to achieve the average flush volume. The reference to the flush cistern will form part of the product short description on the European Water Label website.

Average flush volume ratio 3:1 (litres)
3.50 or less
4.50 or less
5.50 or less
6.00 or less
Greater than 6.00

Note: - Since the introduction of the European Water label, the European Commission has introduced an Ecolabel measure to represent the top 10-20% of lowest flush volume WC suites available on the market.

The testing criteria for the Ecolabel requires product to be tested with the water supply 'live' rather than isolated as detailed in EN 997: 2012 and European National law.

However, the actual flush volume of a WC suite based on the Ecolabel test requirement will always be higher than that of the flush volume tested in accordance with EN 997: 2012. On this basis it is acceptable for manufacturers Ecolabel flush volumes to be quoted for compliance with the European Water Label.

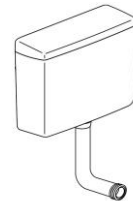
Known National Legislation Caveats

United Kingdom – Class 2 products only (maximum) 6 litre full flush.

The Netherlands – minimum 6 litre full flush.

Independent WC Flushing Cisterns

A WC flushing cistern (sometimes referred to as a tank), delivering specified volume(s) of water, complete with flushing mechanism, inlet valve and flush-pipe that have been tested and complies with Class 1 or Class 2 flushing cisterns of EN 14055: 2010.



Independent WC flushing cisterns complying with the requirements of Class 1 (clause 5) or Class 2 (clause 6) of EN 14055: 2010, that deliver flush volumes which enable Class 2 WC suites (a ratified combination of Independent WC flush cistern and matched WC pan tested and verified as a suite) and Class 1 pans to comply with the respective requirements of Class 1 or Class 2 of EN 997: 2012, when flushed with the volume(s) claimed – shall be verified - based upon a ratio of 3 short flushes to 1 full flush for dual flush products or by the average of 4 flushes for single flush products.

Limitation on Testing

It is a prerequisite of the Scheme that Independent WC flushing cisterns and their internal components shall satisfy all Regulatory requirements of the intended country of destination. For example; only Class 2 products will be able to be listed for the UK market as this requirement is covered by UK Water Regulations.

The product, when verified (flush volume tested in accordance with the details in EN 14055: 2010 for the relevant Class) shall comply with the supplied Declaration of Conformity from the Manufacturer that accompanied the original product applications to the Water Label Company.

Applicants shall hold on file copies of test reports verifying compliance with the relevant aspects of EN 14055: 2010 and European Water Label flush volume verification test. Such test reports shall detail the principal components that form any critical dimensions necessary for compliance with the standard e.g. cistern fixing height. During the audit process it may be necessary to provide copies of these test reports.

It follows that testing under the Scheme is limited to verifying only, that the flush volumes claimed by the applicant comply with the requirements of the scheme.

Apparatus

The apparatus described in clauses 5.3.2 for Class 1 products and 6.10.3 of EN 14055: 2010 shall be used.

Procedure

The procedures described in clauses 5.3.2 for Class 1 products and 6.10.3 of EN 14055: 2010 as applicable shall be followed, with the exception that the total number of full flushes for single flush products shall be 4 and the total number of flushes for dual flush products shall be 4 (in a 3:1 ratio) of part to full flush operations.

The volume of water collected in the measuring vessel after each flushing operation shall be recorded.

Requirements

The measured volume shall not exceed the claimed nominal value of any quoted flush volume.

E.g. for a 6/4 dual flush product, the full flush shall not exceed, at any time the value of 6.00 litres while the part flush volume shall not exceed 4.00 litres.

A calculated average of the 4 flushes (In the case of dual flushing – based on a ratio of 1 full-flush to 3 short-flushes) shall be recorded and detailed on the product listing on the European Water Label database. It is this value along with the nominal full and part flush volumes that can be claimed along with European Water Label listing in product literature and packaging labels etc.

For 'graded' labelling, the nominal average flush volume (3:1 ratio) shall be recorded and displayed on the appropriate label. For consistency, the actual value quoted on the label and website shall be quoted to two decimal places. An example is shown of a 6/4 dual flush product label.

Average flush volume ratio 3:1 (litres)
3.50 or less
4.50 or less
5.50 or less
6.00 or less
Greater than 6.00

Note: - Since the introduction of the European Water label, the European Commission has introduced an Ecolabel measure to represent the top 10-20% of lowest flush volume WC flushing devices available on the market.

The testing criteria for the Ecolabel requires product to be tested with the water supply 'live' rather than isolated as detailed in EN 997: 2012, EN 14055: 2010 and European national law.

However, the actual flush volume of a WC flushing device based on the Ecolabel test requirement will always be higher than that of the flush volume tested in accordance with EN

997: 2012 and EN 14055: 2010. On this basis it is acceptable for manufacturers Ecolabel flush volumes to be quoted for compliance with the European Water Label.

Known National Legislation Caveats

United Kingdom – Class 2 products only (maximum) 6 litre full flush.

The Netherlands – minimum 6 litre full flush

Replacement WC Flush Mechanisms

A replacement flushing mechanism that has been tested and complies with the relevant parts of Class 1 or Class 2 of EN 997: 2012.

General

Replacement WC flushing devices are fitted to existing cisterns or WC suites as replacement items when repairs or maintenance may be required. Often they are also replaced as part of water efficiency measures. However, the flush volume function is largely a factor of cistern size and must be matched for performance to the performance of the pan and as such replacement flush mechanisms may not deliver water savings.

Two types of replacement WC flushing devices are considered suitable to meet the requirement and qualification for inclusion on the European Water Label:

- A. Flushing siphons.
- B. Drop type flush valves.

To deliver water savings replacement flush mechanisms must therefore be of dual flush design.

Limitation on Testing

It is a prerequisite of the Scheme that the replacement WC flushing devices and their internal components shall satisfy all National Regulatory requirements of the intended country of destination. These are detailed in various National Regulations, some of which – with particular reference to water and its use, are referenced in the European Water Label documentation.

Requirement

To ensure durability and effectiveness of the flush the replacement device must comply with the appropriate requirements of the Regulator's specification for WC suites (for UK) and any other legal National Requirements of the country of destination.

For devices designed to replace the existing cistern device, the device must meet the requirements of:

- A – Specification of the water level(s) and the ability to match the original equipment full flush rate to maintain flush efficacy.
- B – The flush mechanism shall be dual flush in operation with the part flush volume being no greater than $\frac{2}{3}$ the full flush volume for any given installation.
- C – Physical endurance and leakage.
- D – Chemical endurance.
- E – Suitable instructions explaining how to operate both full and part flush operations shall be provided for the customer/end user.

Products complying with these requirements will be able to use the 'recommended' European water label as shown below:



3.6 URINALS

General

A sanitary appliance comprising a bowl, stall or slab fixed to a wall or floor for receiving urine and water used for flushing and directing both into a drainage system.

Independent Urinal Flushing Cisterns

A urinal flushing cistern (sometimes referred to as a tank), delivering specified volume(s) of water, complete with flushing mechanism and inlet valve that have been tested and complies with Class 3 EN 14055: 2010 i.e. flush volumes less than 5 litres per flush.

Independent urinal flushing cisterns complying with the requirements of Class 3 (clause 7) of EN 14055: 2010 when flushed with the volume(s) claimed – shall be verified by the average of 4 flushes.

Limitation on Testing

It is a prerequisite of the Scheme that Independent urinal flushing cisterns and their internal components shall satisfy all Regulatory requirements of the intended country of destination.

The product, when verified (flush volume tested in accordance with the details in EN 14055: 2010 for Class 3 products) shall comply with the supplied Declaration of Conformity from the manufacturer that accompanied the original product applications to the European Water Label Company.

Applicants shall hold on file copies of test reports verifying compliance with the relevant aspects of EN 14055: 2010 and European Water Label flush volume verification test. Such test reports shall detail the principal components that form any critical dimensions necessary for compliance with the standard e.g. cistern fixing height. During the audit process it may be necessary to provide copies of these test reports.

It follows that testing under the Scheme is limited to verifying only, that the flush volumes claimed by the applicant comply with the requirements of the scheme.

Apparatus

The apparatus described in clauses 5.3.2 for Class 3 products of EN 14055: 2010 shall be used.

Procedure

The procedures described in clauses 5.3.2 for Class 3 products of EN 14055: 2010 as applicable shall be followed, with the exception that the total number of full flushes for single flush products shall be 4.

The volume of water collected in the measuring vessel after each flushing operation shall be recorded.

Requirements

The measured volume shall not exceed the claimed nominal value of any quoted flush volume.

A calculated average of 4 flushes shall be recorded and detailed on the product listing on the European Water Label database. It is this value that can be claimed along with European Water Label listing in product literature and packaging labels etc.

For 'graded' labelling, the nominal average flush volume shall be recorded and displayed on the appropriate label. For consistency, the actual value quoted on the label and website shall be quoted to two decimal places.

Average flush volume ratio 3:1 (litres)
3.50 or less
4.50 or less
5.50 or less
6.00 or less
Greater than 6.00

Note: - Since the introduction of the European Water Label, the European Commission has introduced an Ecolabel measure to represent the top 10-20% of lowest flush volume urinal flushing devices available on the market.

The testing criteria for the Ecolabel requires product to be tested with the water supply 'live' rather than isolated as detailed in EN 14055: 2010 and European national law.

However, the actual flush volume of a urinal flushing devices based on the Ecolabel test requirement will always be higher than that of the flush volume tested in accordance with EN 14055: 2010. On this basis it is acceptable for manufacturers Ecolabel flush volumes to be quoted for compliance with the European Water Label.

Urinal Controllers

Applicable to UK only. A urinal controller device, in the form of either a pressure flushing valve kit or automatically operated flushing cistern, which have been tested to ensure compliance with National Regulations.

All pressure flushing valves to deliver a maximum flush volume per bowl or position each time the valve is used is 1.50 litres per flush.

All automatically operated flushing cisterns serving urinals shall be filled with water at a rate of 10 litres/hour per urinal bowl for a cistern serving a single urinal bowl or 7.50 litres/hour per urinal bowl or position or as the case might be each 700mm width of urinal slab for a cistern serving 2 or more urinals.

Urinal controllers are available in a number of forms from controllers designed to operate a flush to a single urinal bowl, to a controller that controls the flow of water into a cistern, which flushes multiple urinal bowls or a stall designed for multiple persons.

Limitation on Testing

It is a prerequisite of the Scheme that Urinal Controllers shall satisfy all National Regulatory requirements. These are detailed in various National Regulations, some of which - with particular reference to water and its use, are referenced in the Scheme's documentation.

It follows, that testing under the Scheme is limited to verifying only, that the flow rate(s) and

Requirement

There are two types of permitted urinal controllers:

1. A pressure flushing valve kit with no extra parts needed, supplied to meet requirements. Directly connected to a supply or distributing pipe which is designed to flush the urinal either manually or automatically, provided that the flushing arrangement incorporates a DC pipe interrupter backflow prevention arrangement or device appropriate to fluid category 5. Installation should be checked to ensure compliance with requirements. For these products, the maximum flush volume per bowl or position each time the valve is used is 1.50 litres per flush. If manually operated solenoid or equivalent pressure flushing valves are used, the valve must be of the normally closed type or latching (bi-stable).
2. An automatically operated flushing cistern serving urinals, which shall be filled with water at a rate of:
 - a) 10 litres/hour per urinal bowl for a cistern serving a single urinal bowl; or
 - b) 7.50 litres/hour per urinal bowl or position or, as the case might be, for each 700mm width of urinal slab for a cistern serving two or more urinals; or

If sensors are used to control the flush then they shall not be falsely triggered and they should prevent flushing during long periods of non-use (with the exception of a hygienic flush). Hygiene flush periods should be factory set to occur no more frequently than 12 hours or set to default 'off'.

Any sensor should ensure that the urinal is only flushed after use, excluding hygiene flush.

In each case the controller must be designed so that on installation it can be adjusted to deliver water flush cycles that comply with the Water Supply (Water Fittings) Regulations 1999 i.e. less than 1.50 litres per urinal bowl or position each time the device is operated.

As this is typically an installation requirement then this aspect must be verifiable on physical audit of the product and must be suitably documented in the product documentation to ensure that operatives can install and adjust the product to give suitable performance.

Product documentation shall include all necessary details to ensure that the product can be installed in compliance with National Regulations.

Products complying with these requirements will be able to use the 'recommended' European water label.



3.7 BATH TUBS

General

A sanitary appliance (including whirlpools, air and jetted variants) for the immersion and washing of the human body or parts of it.

Procedure

Use any suitable means e.g. weighing/volume measurement, to establish the volume of water contained when the bath tub is filled to a point at which water first flows through the overflow fitment.

Bath tub without provision of an overflow fitment shall be filled to a level 80 mm below their spill over level.

Note: 80 mm is intended to replicate the invert of an overflow fitment should one have been installed at the maximum height permitted by EN 232: 2003: i.e. dimension $H_1 \geq 60$ mm.

By calculation, establish and record the volume.

Requirement

The volume shall be recorded.

Product will be further sub-divided into the following bands allowing for the fixing of the Scheme Label to the product. A grey arrow on the efficiency rating chart allows for the optional quotation of actual capacity to enable consumers to identify where in the band a particular product sits. If this is used then value quoted must be rounded to the nearest whole number.

Using calculations detailed in EN 806-5: 2012 the effective capacity (i.e. the water required, allowing for displacement of a person, to take a satisfactory bath tub) of a bath tub is 40% of the measured volume. While this is not often understood it is a useful messaging tool to aid consumers in the selection of the correct product.

Actual Bath tub Capacity (litres)	Effective Capacity (litres)
155 or less	62 or less
170 or less	68 or less
185 or less	74 or less
200 or less	80 or less
Greater than 200	80 r more

3.8 MISCELLANEOUS

General

This section has been set to allow emerging products and technologies to be introduced on a trial basis thus giving recognition of the type of product and for the ability to positively impact reduced waste of water.

Supply Line Flow Regulators

A flow regulating device fitted as recommended in the supplied manufacturer's instructions, in either the outlet or inlet of the product or system, designed to produce a maximum flow of water – independent from the supply pressure and limits the stated flow rate to those claimed below at 3 - 0/+0.05 bar pressure.

Flow regulators can either be stand-alone flow regulators or combined tapware components, such as flow regulated aerators or flow regulating check valves

Listing on the European Water Label will require verification of the claimed flow rate on the following basis:

Flow rate @ 3 - 0/+0.05 bar = Claimed maximum flow rate +0/-20% - rating according to table Annex 2.

Examples

- 6 litres per minute claimed flow rate = 6 +0 -1.2 (4.8 to 6) litres per minute
- 8 litres per minute claimed flow rate = 8 +0 -1.6 (6.4 to 8) litres per minute
- 10 litres per minute claimed flow rate = 10 +0 -2.0 (8.0 to 10) litres per minute

Verification of listed product

Claimed flow rate with +0/-20% tolerance to be tested @1.5 and 3.0 bar pressures.

N.B. It is strongly recommended that when fitting a flow regulator to a terminal fitting or any part of a system that supplies water to a flow regulator, it must be compatible with such a system, any fitting within the system or any equipment. In other words the addition of the flow regulator does not affect the safety or performance of the equipment or fitting for the purpose for which it was originally intended.

Grey Water Recycling Units

Are considered by their very nature of re-using water to be 'eco' products. The outlet itself can be 'fixed' or 'flexible' with either single or multi-mode spray patterns.

This Scheme only covers those products that are permanently installed into the fabric of the building and provide water for internal use e.g. WC flushing.

It follows, that testing under the Scheme is limited to verifying only the capacities.

Grey water recycling units are considered by their very nature of re-using water to be 'eco' products. The Scheme intends only to cover those products that are permanently installed into the fabric of the building and provide water for internal use e.g. WC flushing.

It is a prerequisite of the Scheme that grey water recycling units shall satisfy all National Regulatory requirements. These are detailed in various National Regulations, some of which - with particular reference to water and its use, are referenced in the Scheme's documentation.

It follows, that testing under the Scheme is limited to verifying only the capacities claimed by the manufacturer. Products complying with these requirements will be able to use the 'recommended' European water label, shown below:



Flush Free Urinals

A urinal complete with housing, trap and associated components designed to retrofit into existing urinals that have been tested and comply with resistance to blockage and trap backpressure tests in clause numbers 3.8.4.3, 3.8.4.4, 3.8.4.5 and 3.8.4.6. It follows, that testing under the Scheme is limited to verifying only those tests detailed in 3.8.4.1 Limitation on Testing. Products complying with these requirements will be able to use the 'recommended' water label.

Limitation on Testing

It is a prerequisite of the Scheme that Flush Free Urinals and their internal components shall satisfy all National Regulatory requirements of the intended country of destination.

The products, when verified in accordance with the details in clause numbers 3.8.4.3, 3.8.4.4, 3.8.4.5 and 3.8.4.6 for resistance to blockage and trap backpressure tests shall comply with the supplied Declaration of Conformity from the manufacturer that accompanied the original product applications to the Water Label Company.

Requirements

Verification required to the following tests:-

Resistance to Blockage Test

Two unfiltered cigarette pieces shall be deposited into the urinal. The length of the cigarette pieces shall be 1.5in +/- 0.25in (38mm +/- 6.4mm) and created by folding an unfiltered cigarette back upon itself such that the cigarette paper tears or breaks apart in approximately one-half lengths.

Tap water shall be added to the unit at a flow rate of 0.5L per min. Cigarette pieces and water shall be alternately added to the urinal until a total of 20 cigarette pieces and 5L of water have been added. The cigarette pieces shall then be removed from the urinal and the test shall be conducted five additional times (for a total of six test replicates). Alternate between unfiltered and crumpled unfiltered cigarettes per test so that three tests are conducted using unfiltered cigarettes and three tests are conducted using crumpled unfiltered cigarettes.

Performance Requirement for Resistance to Blockage Test.

There shall be no evidence of blockage or clogging during each test run with cigarette pieces in the fixture and when removed.

Trap Backpressure Test

The trap insert shall be installed and removed 6 times using the extractor tool provided by the manufacturer. This shall be considered one repetition. Upon completion of the extractions and insertions, the trap shall be capable of withstanding an air test of positive pressure of 0.04 -0/+0.002 bar for at least 3 mins. Every trap should remain leak tight.

Performance Requirement for Trap Backpressure Test

There shall be no pressure loss at any time during the test and the reliability between water seal and open drain must be maintained.

Installation & Maintenance.

The manufacturer's instructions for installation and maintenance must be followed to ensure correct fitting of products and their cleaning regime are maintained

Products complying with these requirements will be able to use the 'recommended' European water label shown below:



3.9 ENERGY

General

It is recognised that the amount of energy used to heat water can be a significant contributor to the cost of running a home. With this in mind, it can be useful to identify the amount of energy used in running a terminal fitting for the consumer as part of the general European water label information.

Calculation

To calculate, consistently, the energy used to heat water, average supply and delivery temperatures along with average use patterns have to be established. The basic calculation is based on first principle physics:-

$$\text{Energy [kWh]} = \text{Mass [kg]} \times \text{spec. Heat-coefficient of water [kWh / (kg x K)]} \times \text{Delta T [T]}$$

This basic calculation coupled with average use times can easily be used to calculate expected annual energy consumption.

Average use times to be used for the following products are:-

Basin (& bidet) taps: -	1 minute per event, 5 events per person per day
Kitchen taps: -	1 minute per event, 5 events per person per day
Showers (handsets & mixer controls):-	7 minutes per event, 1 event per person per day

For basin (& bidet) taps and showers the average outlet temperature is always regarded as 38°C while for kitchen taps the average outlet temperature is regarded at 45°C. In all cases the average seasonally adjusted inlet temperature is regarded as 15°C.

Core assumptions have been taken directly from the European Commission study into taps and showers task 3 report: users. For reference purposes this document can be found via the following link: -

http://susproc.jrc.ec.europa.eu/taps_and_showers/docs/Task3_2ndTWG_v2.4.pdf

For Bath tubs, the same core calculation can be used to help users understand, in energy terms the cost of filling the bath tub for each bathing event.

The energy icon can be added to the base of the European Water Label to depict to the consumer the expected annual energy cost of using the product. It is required that all basin taps, kitchen taps, showers (handsets and mixer controls) and bath tubs shall carry the energy icon. The energy icon shall in all cases be placed under the main water rating and to the far left of the space provided for all technical icons (for the applicable categories). An example of the energy icons can be seen below:



4.0 TECHNICAL ICONS

General

To enhance the label and to highlight to consumers technical features present, manufacturers are able to add a maximum of three technical icons (in addition to the energy icon) to the label.

Allowable Icons

To be defined along with their qualifying criteria.

5.0 PARTIES AND APPLICATION

This Scheme and label was initially established by the UK bathroom industry. CEIR (taps and valves), FECS (ceramic sanitary ware), agrival, Afics, Cerame Unie, Profluid, Afisb, Fluidex, Anfacesa, Pomsad and Fachverband Sanitär-Keramische Industrie E.V. have worked to develop it into a European Scheme together with the BMA.

It is now addressed to all manufacturers of water 'using' products supplying their products on the EU, Israel, Norway, Switzerland, Russia, Ukraine and Turkey markets.

Definitions

Scheme and label administrator: the Water Label Company Ltd

Established at:

Innovation Centre 1, Keele Science & Business Park, Newcastle-under-Lyme ST5 5NB, UK

Manufacturers: companies legally established in any of the countries where the Scheme can operate.

CEIR: The European Taps and Valves Association, located at:
Diamant Building, 80 Bd Reyers, 1030 Brussels, Belgium
CEIR national associations: all legally constituted trade associations of the valve manufacturers in Europe which are members within CEIR.

FECS: Rue de la Montagne 17 – B-1000 Brussels

The Bathroom Manufacturers Association, located at:
Innovation Centre 1, Keele Science & Business Park, Newcastle-under-Lyme ST5 5NB, UK

Agrival can be located at:
C/Marques de Sotelo 13, 4º, 11 ES - 46002 Valencia Spain

Afics can be located at:
2 Bis rue Michelet 92130 Issy Les Moulineaux

Anima located at:
Scarsellini 13, I-20161 Milano - Italy

Cerame Unie can be located at:
Rue de la Montagne 17, 1000 Bruxelles, Belgium

Profluid can be located at:
PROFLUID (MAISON DE LA MECANIQUE) 45 rue Louis Blanc 92400 Courbevoie

Fluidex can be located at:
Edificio Albia I – C/ San Vicente, 8 3ª planta – Dpto. 5 BIS – E 48001 BILBAO (Spain)

Fachverband Sanitär-Keramische Industrie E.V. can be located at:
Schillerstraße 17 D-95100 Selb

Anfacesa can be located at:
C/Isabel la Católica 8, pta 63 46004 Valencia

Pomsad can be located at:
İstanbul Karayolu 16. Km No: 153, Etimesgut/Ankara, Turkey

Application

Any manufacturer with suitable products on the EU, Israel, Norway, Switzerland, Russia, Ukraine and Turkey markets can submit an application. It will be sent to the Scheme and label administrator using the application form and the declaration of conformity.

Any changes to the technological characteristics of the product for which application is sought, and which may have an influence on the performance of the product and potentially change the classification of the product, should be notified via completion of the appropriate product modification form to the Scheme and label administrator.

Copies of certificates of compliance/test reports from third parties can be provided in support of declaration of compliance.

Product can remain listed as long as the product remains available in the EU, Israel, Norway, Switzerland, Russia, Ukraine and Turkey markets.

The manufacturer's registration to the Scheme will be invoiced in accordance with the applicable conditions and fees. Applications received during the 1st year will be charged pro rata and full rates applied thereafter.

The European Water Label scheme will inform the applicant if the application has been successful and provide all the necessary information and guidance on the use of the label, or if the application has been rejected and the reasons for this decision.

Termination

The Scheme and label administrator has the right to cancel or suspend the registration of a product carrying the European Water Label. This may be justified e.g. if the criteria of the Scheme are not met, if the information provided is incorrect or misleading or if no notification of relevant product modification has been provided in due time (See point 6). The Scheme and label administrator will give notice and reasons to the manufacturer in writing.

A signatory can terminate his registration to the Scheme at any time by submission by registered mail of a letter of termination to the Scheme and label administrator.

There will be no refund of the fees already paid to the Scheme and label administrator.

6.0 AUDITING

The Scheme auditing is coordinated by the Scheme and label administrator. Audits are performed regularly by selected test houses on products selected randomly. The cost and arrangement of testing is the responsibility of the listing company.

The Scheme and label administrator will arrange for 5% of the products (and accompanying literature, point of sale material and advertisements in relationship to the listed products) on the Scheme database to undergo an audit for compliance with the Scheme's requirements on an annual basis. The 5% will be selected, across the qualifying product ranges. Various options exist to qualify for audit, see <http://www.europeanwaterlabel.eu/testhouses.asp>.

7.0 REPORTING AND MONITORING

The signatories agree to provide the Scheme and label administrator, independent of the signatories but appointed by them, with the relevant information on progress made in implementing the present Scheme and label. This information will be provided on a yearly basis and will be gathered by the Scheme and label operator to form a report. To this end, the Scheme and European Water Label administrator will submit a structured questionnaire/enquiry document.

The Scheme and label administrator will disclose the information provided by the manufacturers only in aggregated form, i.e. relating to the overall market but not to individual manufacturers. The Scheme and label administrator will not disclose any confidential information on individual manufacturers to other manufacturers or third parties.

The results of the report will be published by the Scheme and label administrator in order to report on the implementation of this Scheme and European Water Label, and assess the current situation on visibility and market transformation influence by the European Water Label.

8.0 GOVERNANCE COMMITTEE AND RESPONSIBILITIES

A governance committee will be established. It will have the responsibility to recommend to the Scheme and label administrator handling all matters as well as all complaints by signatories or third parties regarding this Scheme and the European Water Label.

The governance committee proposes changes to the Scheme criteria in keeping with necessary administrative adaptations and possible regulatory changes impacting the Scheme. The proposal is submitted to the plenary meeting of the Water Label Company for acceptance.

The governance committee will take all necessary measures to enforce this Scheme and the European Water Label, and supervise the compliance of the signatories. All participants will commit themselves to collaborate with the governance committee in resolving any problem connected with the implementation and fulfilment of this Scheme and the European Water Label.

9.0 NON-COMPLIANCE, SANCTIONS AND PENALTIES

Only products that have been granted acceptance to the Scheme and that conform to all its requirements may be listed in the Scheme database and may carry the European Water Label.

Any inappropriate use of the European Water Label either on the product, packaging or supporting marketing / technical material will result in the signatory being warned to conform to the use requirements or being withdrawn from the Scheme, and the use of the label from all marketing / technical material should be withdrawn with immediate effect.

This Scheme is a voluntary Scheme developed to raise awareness on the water performance of water using bathroom products, and to promote best practice for water efficiency within the bathroom and kitchen environment. In the event of a dispute between parties, the practice of 'good faith' for resolving the dispute under the Scheme will be used. In the event that the dispute cannot be resolved with the parties involved must formally inform the Governance Committee explaining the dispute, actions already taken and a possible solution. The Governance Committee will undertake to resolve the dispute as quickly as possible.

In case of evidence of non-compliance, the Governance Committee will review the evidence and make recommendations.

If a signatory fails to meet the requirements of the present Scheme and European Water Label, the Governance Committee will address a warning. The signatory will have to take all necessary measures to redress the situation within 3 months.

If the signatory takes the necessary measures, but these measures are insufficient to comply with the requirements, the Governance Committee may decide to extend the deadline for compliance.

If the signatory fails to take the necessary measures within the set deadline, he will be deemed not to comply with this Scheme, and will be deleted from the list of signatories. In this case, the

Scheme and label administrator will publicly state that the signatory no longer participates in the Scheme. No refund of fees already paid could be claimed either in part or in full.

If a non-signatory or a former signatory uses the European Water Label in a way which does not comply with this Scheme, the Governance Committee will take any reasonable step, including legal measures if available, to prevent any prejudice to this Scheme, label and its signatories.

10.0 REVISION

This Scheme and label based on the current state of the art. The signatories agree to review its objectives should the technological, economic and societal situation require so. In the event of a review, the signatories commit themselves not to lower the requirements of the current European Water Label. Any changes and updating of this Scheme will be handled by correspondence or where necessary a meeting.

11.0 DURATION

Scheme registrations are for a 12 month period, running from January to December. Registrations undertaken during the first year will be charged on a pro rata basis.

12.0 MARKETING

CEIR and FECS will ensure that the present Scheme is accessible on the internet and promoted at EU level. All national associations are encouraged to promote this Scheme in the different Member States. All signatories should make reference to this Scheme on their websites, brochures, registered products documentations etc.

13.0 COPYRIGHT

The Water Label Company owns the full copyright and the exclusive use licence for the European Water Label. The Water Label design is a Registered Community design of The Water Label Company: Registration Number 002229757.

14.0 DISCLAIMER

The European Water Label is a voluntary scheme aimed at raising awareness and informing on the water consumption and performance of water using products in Europe. The Scheme and label administrator cannot be held liable for any misuse or counterfeit use of the label under the Scheme. This Scheme does not endorse the quality of the products labelled or the quality control of the manufacturing process.

Annex 1 – Flow Rate Classification

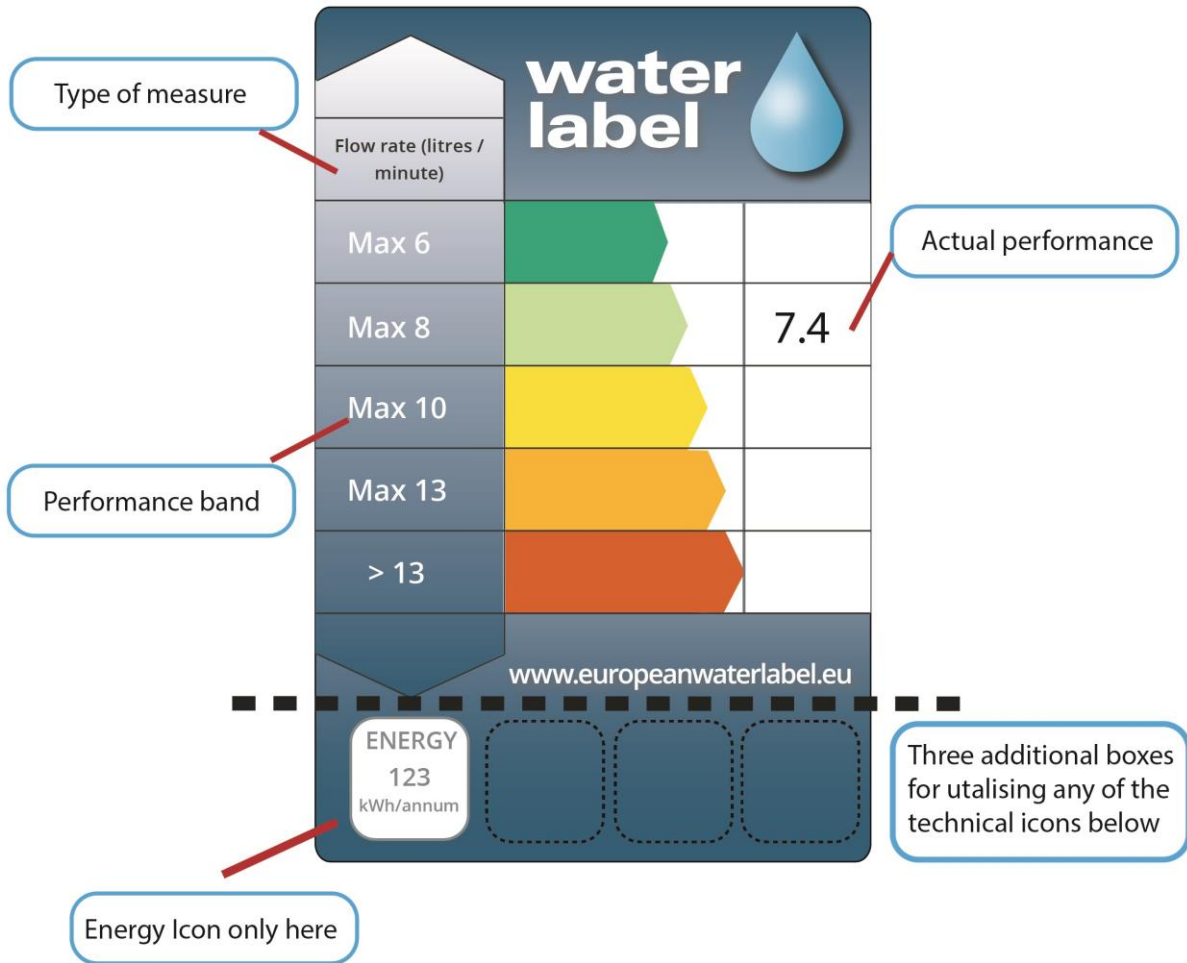
Rating	Measured at (bar)	Flow Rate l/min	
		Basin Tap Kitchen Tap Hand / Overhead Showers Bath tubs and Shower Taps and kits (Shower outlet only)	Label
Water Use	3 or max operating pressure if lower (to be stated)	Max 6 Max 8 Max 10 Max 13 Greater than 13	Max 6 Max 8 Max 10 Max 13 Greater than 13

NOTE:

- Reference standards / products covered are the following: EN 200: 2008, EN 816: 1997, EN 817: 2008, EN 1111: 1999, EN 1286: 1999, EN 1287: 1999, EN 15091: 2013.
- Flow rate to the basin/sink must be considered (e.g. sum of the flows in case of pair of pillar taps).
- Flow restriction should not be made on both sides - either valve or showerhead.
- Flow rate <6 class products may not be suitable for use with combi-boilers.
- Flow rate >13 is based on current EN standards.
- Limitations applying for specific installations conditions such as minimum flow rates of boilers must be taken into consideration and may lead to restrictions in use.

Annex 2 – European Water Label

The model label to be used for taps and shower heads is presented below. The label takes the form of a coloured scaled rate, identifying the product flow rate and its corresponding class. The colour scheme ranges from orange (more water use) to green (lowest water use). The flow rates are given in ranges e.g. Maximum 6 litres. See below for examples of how the water label is used:



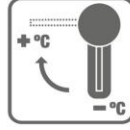
Flow Regulator



Thermostatic



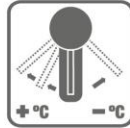
Cold start position



Pull out Spray



Water break



Temperature control



Time flow

The label includes the classification set out in Annex 1.

