TEST CODE SHEET

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1. TYPE OF TEST(S)

Flushing device: chemical endurance

2. WATER REGULATIONS REQUIREMENTS FOR FITTINGS

Schedule 2

25 (1) Subject to the following provisions of this paragraph

(a) every water closet pan shall be supplied with water from a flushing cistern, pressure flushing cistern or pressure flushing valve, and shall be so made and installed that after normal use its contents can be cleared effectively by a single flush, or, where the installation is designed to receive flushes of different volumes, by the largest those flushes;

(b) no pressure flushing valve shall be installed
(i) in a house, or
(ii) in any building not being a house where a minimum flow rate of 1.2 litres per second cannot be achieved at the appliance.

(c) where a pressure flushing valve is connected to a supply pipe or distributing pipe, the flushing arrangement shall incorporate a backflow prevention device consisting of a permanently vented pipe interrupter located not less than 300mm above the spillover level of the WC pan or urinal;

(d) no flushing device installed for use with a WC pan shall give a single flush exceeding 6 litres;

(e) no flushing device designed to give flushes of different volumes shall have a lesser flush exceeding two-thirds of the largest flush volume;

(f) every flushing cistern, other than a pressure flushing cistern, shall be clearly marked internally with an indelible line to show the intended volume of flush, together with an indication of that volume.

(g) a flushing cistern designed to give flushes of different volumes
(i) shall have a readily discernible method of actuating the flush of different volumes; and
(ii) shall have instructions, clearly and permanently marked on the cistern or displayed nearby, for operating it to obtain the different volumes of flush

(h) every flushing cistern, not being a pressure flushing cistern or a urinal cistern, shall be fitted with a warning pipe or with a no less effective device;
(i) every urinal that is cleared by water after use shall be supplied with water from a flushing device which
(ii) in the case of a flushing cistern, is filled at a rate suitable for the installation;
(iii) in all cases, is designed or adapted to supply no more water than is necessary for effective flow over the internal surface of the urinal and for replacement of the fluid in the trap; and

(j) except in the case of a urinal which is flushed manually, or which is flushed automatically by electronic means after use, every pipe which supplies water to a flushing cistern or trough used for flushing a urinal shall be fitted with an isolating valve controlled by a time switch and a lockable isolating valve, or with some other equally effective automatic device for regulating the periods during which the cistern may fill.

(2) Every water closet, and every flushing device designed for use with a water closet, shall comply with a specification approved by the regulator for the purposes of this schedule.

(3) The requirements of the sub-paragraphs (1) and (2) do not apply where faeces or urine are disposed of through an appliance that does not solely use fluid to remove the contents.

(4) The requirement in sub-paragraph (1)(I) shall be deemed to satisfied

(a) in the case of an automatically appeared flushing cistern servicing urinals which is filled with water at a rate not exceeding

(i) 10 litres per hour for a cistern serving a single urinal;
(ii) 7.5 litres per hour per urinal bowl or stall, or as the case may be, for each 700mm width of urinal slab, for a cistern serving two or more urinals;

(b) in the case of a manually or automatically operated pressure flushing valve used for a flushing urinals which delivers not more than 1.5 litres per bowl or position each time the device is operated.

(5) Until 1 January 2001 paragraphs (1) (a) and (d) shall have effect as if they provided as follows

(a) every water closet pan shall be supplied with water from a flushing cistern or trough of the valveless type which incorporates siphonic apparatus;

(b) no flushing device installed for use with a WC pan shall give a single flush exceeding 7.5 litres.

(6) Notwithstanding sub-paragraph 1(d), a flushing cistern installed before 1st July 1999 may be replaced by a cistern which delivers a similar volume and which may be either single flush or dual flush; but a single flush cistern may not be so replaced by a double flush cistern.

(7) In this paragraph

'PRESSURE FLUSHING CISTERN' means a WC Flushing device that utilises the pressure of water within the cistern supply pipe to compress air and increase the pressure of water available for flushing a WC pan.

'PRESSURE FLUSHING VALVE' means a self closing valve supplied with water directly from a supply pipe or a distributing pipe which when activated will discharge a pre determined flush volume.

'TRAP' means a pipe fitting or part of a sanitary appliance, that retains liquid to prevent the passage of foul air; and

'WARNING PIPE' means an overflow pipe whose outlet is located in a position where the discharge of water can be readily seen.

3. BRITISH STANDARDS OR WATER SPECIFICATION, DEEMED TO SATISFY WATER REGULATIONS REQUIREMENTS

3.1 None.

4. TEST PROCEDURE

Apparatus

a) Weighing scales having a resolution of 0.1g and an accuracy of ±0.05g;
b) Micrometer having a resolution of 0.1mm and an accuracy of ±0.05mm;
c) Test solution (100ml of domestic chlorine-based bleaching agent, consisting of up to 5% sodium hypochlorite and anionic surfectants to every 900ml of water);
d) Container.

Procedure

Dismantle the flushing device and weigh all seals, plungers, pistons or other components that initiate and stop water discharge and measure and record the principle dimensions e.g. external diameter and thickness. Reassemble the components and place the complete assembly in the container filled with test solution. Ensure that the assembly is covered by at least 100mm depth of test solution. Leave for a period of 90 ± 2 days. Remove from the test solution and rinse under clean water. Dismantle the flushing device, re-weigh and re-mantle all components and check if they are in accordance with the acceptance criteria. Record the result.

WARNING Appropriate precautions should be taken when using chlorine based agents. Do not touch raw crystals or the stock solution, or allow these to come into contact with clothing or easily combustible materials.

Re-assembly and subject the flushing limiter to a 3 000 cycle endurance test in accordance with TCS 1211.15, using the long term leak test after the first and last cycles, and check for leaks. Record the result.

5. ACCEPTANCE CRITERIA

When tested as described above, there shall be:

- no dimensional alteration of any component greater than 1 mm or 5% whichever is the lesser;
- no weight loss of any component greater than 1 g or 5 % whichever is the lesser;
- no visible sign of physical change such that performance is impaired;
- no deterioration in performance.

The flushing device shall not leak after undergoing a 3000 cycle physical endurance test and long term leakage test. The test shall be carried out as stated in TCS 1211.15 Flushing device physical endurance and leakage.