TEST CODE SHEET

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1. TYPE OF TEST(S)

Endurance.

2. BYELAW REQUIREMENT FOR FITTINGS

Byelaw 52

Every water fitting shall be constructed of materials, the nature, the strength and thickness of which .... will prevent, so far as is reasonably practicable, damage from.....

(d) internal and external temperature .....

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

(See Water Supply Byelaw Guide)

3.1 Fittings with 'kitemarks' which are deemed to satisfy the requirements of byelaws are listed in the directory.

4. TEST PROCEDURE

Note Unless stated otherwise the temperature of the test fluid shall be 20 ± 10°c.

4.1 Tests applicable to the following fittings:-

HEATERS - electric, thermal storage, closed outlet with feed cistern
BOILERS - catering with feed cistern

(A) THERMAL STORAGE ELECTRIC WATER HEATERS
CATERING BOILERS WITH FEED CISTERN
(Derived from BS843 - constructional and water requirements)

TEST METHOD

Temperature rise test

Every cistern type heater shall be capable of withstanding the following test:

The heater shall be fitted with clean water through the float operated valve, and left for 12 hours (± 30 minutes) in a room of normal temperature, that is approximately 18° C (± 5°C) The thermostat shall be set to give a temperature of 75 ± 2°C in the hot water container. The electricity supply then shall be switched on and, at the end of 8 hours (± 15 minutes) the temperature of the water in the feed cistern shall be measured by thermometer, the water being agitated to render the temperature of the contents of the cistern uniform. No water shall be drawn from or added to the heater during the test. The temperature of the water so tested shall not exceed 38°C

The control thermostat (1st level of temperature control) is then short-circuited and the water in the hot water container is allowed to boil freely for 500 hours (± 24 hours), unless any secondary safety device is included to prevent this. During this part of the test the correct water level is maintained in the feed system. The test is terminated after 500 hours (± 24 hours. After the test the complete assembly shall not leak or show evidence of damage.

5. ACCEPTANCE CRITERIA

The fitting is acceptable if:

(a) the temperature of the water in the feed cistern does not exceed 38°C at the end of the first part of the test.

(b) the cistern does not leak either from detects in the sides or bottom or by water flowing over the top edge as a result of the cistern becoming deformed during the test.

(c) the nominated float operated valve and float satisfies the requirements of TCS 1111.2.

(d) the fitting is provided with means of accommodating the expansion water in normal use without discharge to waste.