TEST CODE SHEET

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1. TYPE OF TEST(S)

Endurance

2. WATER REGULATIONS REQUIREMENTS FOR FITTINGS

Schedule 2

15-(1) …. every water system shall contain an adequate device or devices for preventing backflow of fluid from any appliance, fitting or process from occurring.

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

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

4. TEST PROCEDURE

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

4.1 Tests applicable to the following:-

NON-VERIFIABLE DISCONNECTOR CA
DN6 to DN50. (For Hot and Cold Water use)
Devices for the prevention of contamination by backflow.

(A) NON-VERIFIABLE DISCONNECTOR CA (Derived from prEN W1097 C25: 1999. Clause 9.4.3)
DN6 to DN50. (For Hot and Cold Water use)

TEST METHOD

APPARATUS The following apparatus is required.

A supply of water to achieve the test flow rates at the required temperature/pressure.

Flow meter.

Pressure gauges.

Note

Test 1 & 2 only for valves intended for hot water use.

Test 3 Valves for hot water use test temperature 65°C.
Valves for cold water use test temperature 20°C.

Test 3 Not required for Class B valves. TCS 1211.19 applied instead.

Class B valves are restricted for temporary use and have the following maximum working pressures.
Downstream pressure: up to 3 bar.
Downstream pressure variation up to 3 bar
Water supply up to 110°C.

PROCEDURE The procedure shall be as follows:

Test 1

(1) Place the complete device for 72 ± 3 hrs in an environment of 65 ± 3°C with a relative humidity of 50 ± 5%.

Test 2

(2) Remove the device from *Test 1* and mount the device in a test system.

(3) Produce a flow rate through the device at a water temperature of 90°C ± 2°C.

(4) When the temperature reaches 85°C ± 2°C at the outlet of the device, maintain the flow rate for 60 min - 0 + 6 mins. and then supply the device with water at 15°C ± 5°C for 10 min - 0 ± 60 sec.

Test 3

(5) Mount the device in the test system in its normal working position.

(6) Subject the valve to 5000 cycles at a temperature of 20 ± 5°C for valves intended for cold water use, or at a temperature of 65 ± 2°C for valves intended for hot water use.

(7) Circulate water at a flow rate as given in Table 1 ± 5% for 6 ± 2 seconds.

(8) Stop the flow and apply upstream a static pressure of 3 bar ± 0.25 bar for 6 ± 2 seconds.

(9) Relieve the upstream to atmosphere and hold for 6 ± 2 seconds.

(10) Circulate water at a flow rate as given in Table 1 ± 5% for 6 ± 2 seconds.

(11) Stop the flow and apply upstream a static pressure of 10 bar ± 0.5 bar for 6 ± 2 seconds.

(12) Relieve the upstream to atmosphere and hold for 6 ± 2 seconds.

This constitutes 1 cycle.

The 5000 cycles are broken down into seven periods as follows:
- 1250 cycles.
- Rest the valve for 14 hours ± 1 hour.
- 1250 cycles.
- Subject the valve to a static pressure of 10 bar ± 1.0 bar at the inlet for 14 hours ± 1 hour.
- 1250 cycles.
- Subject the valve to an upstream pressure of 3 bar ± 0.5 bar and a downstream pressure of 10 bar for 14 hours ± 1 hour.
- 1250 cycles.

Table 1

DN	6	8	10	15	20	25	32	40	50
Nominal Flow Rate m^3/hr	0.2	0.36	0.56	2	3.2	5.4	8.6	13.6	21

5. ACCEPTANCE CRITERIA

At the conclusion of the test, the device shall not show only signs of deterioration in its coating, elastomer parts or synthetic materials.

Upon completion of the test and without replacement of any component., the device shall be capable of meeting the performance requirement tests 1111.18, 1111.19, 2212.11 and 1511.1.