WRc Evaluation & Testing Centre Ltd

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WBS TEST & ACCEPTANCE CRITERIA PD.

Issue No: 2

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TEST CODE SHEET

1. $\underline{TYPE OF TEST(S)}$

Porosity

2. BYELAW REQUIREMENT FOR FITTINGS (see application list overleaf)

Byelaw 52

Every water fitting shall be constructed of materials which will prevent, so far as is reasonably practicable, damage from

(c) internal water pressure

Byelaw 53

Every water fitting which -

- (a) is installed below ground; or
- (e) is in any other position which is inaccessible, or to which access is difficult; shall be -
 - constructed to withstand without bursting, buckling, fracture or leaking an internal; hydraulic
 pressure twice that to which it would normally be subject

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

(See Water Supply Byelaws Guide)

BS 2871 Part 1 Clause 11.

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 $20 \pm 10^{\circ}$ C

4.1 Test(s) applicable to the following fittings:

TUBES

- copper
- corrugated copper pliable plumbing connectors

(A) NON-BS FITTINGS

TEST METHOD

A hydraulic pressure of twice the claimed maximum operating pressure rating, shall be applied to fittings claimed to be suitable for use in all locations, including below ground and inaccessible positions.

This pressure shall be applied with water at ambient temperature for a period of 15 minutes \pm 30 seconds.

Any reduced test pressure for fittings for restricted application shall be not less than 1.5 times the claimed maximum operating pressure rating.

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5. <u>ACCEPTANCE CRITERIA</u>

There shall be no visible indication of leakage due to porosity, or any permanent increase in diameter at any point during the above test.

All fittings shall be capable of being identified for particular applications by suitable marking under TCS 6001.1.

(B) <u>BS FITTINGS.</u>

TEST METHOD

BS2871: Part 1 Copper tubes for water

Clause 11 Non-destructive test satisfy that each tube will withstand the minimum test pressure specified (see below) as appropriate to the size of tube, without leakage

Table X tube, up to and including 54mm, half hard, min. hydraulic pressure 35 bar

Table X tube, over 54mm, up to and including 108mm, half hard, min. hydraulic pressure 25 bar

Table X tube, over 108mm, up to and including 159mm, half hard, min, hydraulic pressure 15 bar

Table Y tube, up to and including 35mm, annealed, min. hydraulic pressure 35 bar

Table Y tube, over 35mm, up to and including 108mm, annealed, min hydraulic pressure 25 bar

Table Y tube, up to and including 35mm, half hard, min, hydraulic pressure 50 bar

Table Y tube, over 35mm, up to and including 108mm, half hard, min hydraulic pressure 25 bar

Table Z tube, up to 54mm, hard drawn, min. hydraulic pressure 35 bar

Table Z tube, over 54 mm, up to and including 180mm, hard drawn, min. hydraulic pressure 25 bar

Table Z tube, over 108mm, up to and including 159mm, hard drawn, min. hydraulic pressure 15 bar

(WBS - this test shall be with water at ambient temperature, for a duration of 15 minutes \pm 30 seconds).

5. <u>ACCEPTANCE CRITERIA</u>

In accordance with the requirements of the British Standard, there shall be no visible indication of leakage due to porosity.

All fittings shall be capable of being identified for particular applications by suitable marking under TCS 6001.1.