

Form: TMV1

Issue No 9

Issue Date: April 2009



## **BUILD CERT THERMOSTATIC MIXING VALVE SCHEMES TMV 2 & TMV 3 APPROVAL**

1. Thank you for your recent enquiry, the information below explains the Scheme's procedures and requirements. The application form TMV2 and/or TMV3, as appropriate, must be completed and returned to the scheme administrator to progress the TMV approval.
2. The BuildCert Thermostatic Mixing Valve Scheme assesses the performance requirements of thermostatic mixing valves against one of the following standards.
  - a) TMV2 approval, BS EN 1111 and/or BS EN 1287
  - b) TMV3 approval, NHS Estates Model engineering specification D 08

The BuildCert Certification Scheme ensures that thermostatic mixing valves continue to meet the schemes requirements by ensuring that: -

- Every 5 years the thermostatic valve meets the performance requirements of the standard
- The manufacturer/factor has a recognised quality system in place
- The thermostatic mixing valve satisfies the BuildCert performance audit requirements (audit testing within the 5 years approval period)

### **3. GENERAL INFORMATION**

- 3.1 An applicant can be either a manufacturer or a factoring agent. Whichever party pays the test fee of a successful application shall own the licence for the valve.
- 3.2 Where the same product is sold by a number of factoring agents each individual agent shall possess a licence carrying his own unique product reference.
- 3.3 An Installation and Maintenance (I&M) documentation must be supplied with the valve(s) and shall include specific information upon the operating characteristics of the valve and operational procedures. For full details upon the information that must be included within the I&M document refer to the BuildCert website [www.buildcert.com](http://www.buildcert.com) or contact the Scheme Manager.
- 3.4 Valves must be identified by a unique identification mark that is permanent and legible. For TMV3 approval if the marking is applied to a detachable part of the valve e.g. a cap or indice, this detachable part shall be attached to the valve by means of a fixing that requires a tool other than a standard screwdriver to remove the part.

3.5 The Technical Assessment Panel (TAP) comprises independent experts who confirm the test and audit requirements and review the test and audit reports and the additional schemes requirements in accordance with BuildCert policies.

3.6 BuildCert must approve the laboratory undertaking the testing prior to tests commencing. Laboratories shall comply with ISO 17025 and have within the scope of accreditation D 08 (TMV3) and/or EN 1111 and EN 1287 (TMV2) and be accredited with UKAS (or equivalent) as a test laboratory. BuildCert will require inter-laboratory trials and details of the laboratory procedures (in English) for testing to D 08 and reserve the right to carry out site inspections as necessary. For testing to EN 1111 and EN 1287 BuildCert reserve the right to require inter-laboratory trials and to carry out site inspections, as necessary. The list of approved test laboratories can be found in Annex A.

3.7 Conditions of use for Type 2 and Type 3 valves

|                                    | Low Pressure<br>TMV2<br>BS EN 1287 | High Pressure<br>TMV2<br>BS EN 1111 | Low Pressure<br>TMV3<br>NHS Spec D 08 | High Pressure<br>TMV3<br>NHS Spec D 08 |
|------------------------------------|------------------------------------|-------------------------------------|---------------------------------------|--|
| Maximum Static Pressure<br>(Bar)   | 10                                 | 10                                  | 10                                    | 10                                     |
| Flow Pressure, Hot & Cold<br>(Bar) | 0.1 to 1                           | 0.5 to 5                            | 0.2 to 1                              | 1 to 5                                 |
| Hot Supply Temperature<br>(°C)     | 55 to 65                           | 55 to 65                            | 52 to 65                              | 52 to 65                               |
| Cold Supply Temperature<br>(°C)    | ≤ 25°                              | ≤ 25°                               | 5 to 20                               | 5 to 20                                |

**NOTE:** Valves will not be approved for any conditions of use (see appropriate Table) for which testing has not been undertaken; therefore licensed valves operating outside these conditions cannot be guaranteed by the Scheme to operate as Type 2 or 3 valves.

#### 4. **SUBMISSION OF APPLICATION**

4.1 An applicant wishing to submit a Thermostatic Mixing Valve for BuildCert approval must complete the appropriate application form TMV2 or TMV3 and return it to:

The Scheme Administrator  
 BuildCert Ltd  
 Unit 30 Fern Close  
 Pen-y-Fan Industrial Estate, Oakdale  
 Gwent, NP11 3EH, United Kingdom.  
 Or email it to: [paul.taylor@wrcnsf.com](mailto:paul.taylor@wrcnsf.com)

4.2 A copy of the applicant's ISO 9001 quality assurance certificate, with accompanying scope of accreditation must be supplied with the completed application form. Where this is not available BuildCert will conduct its own quality audit.

4.3 Only production valves will be considered for certification by the scheme.

## 5. TEST REQUIREMENTS

- 5.1 Type 2 Valves (TMV2) will be tested in accordance with the standards BS EN 1111:1999 “Sanitary tapware Thermostatic mixing valves (PN 10). General technical specification” and/or BS EN 1287:1999 “Sanitary tapware Low pressure thermostatic mixing valves General technical specifications “ together with the additional BuildCert test criteria for cold-water isolation at an elevated temperature of 46°C according to the valves specified conditions of use i.e. for bath or bidet installation. Acoustic testing is excluded unless otherwise requested by the client.
- 5.2 Type 3 Valves (TMV3) will be tested in accordance with the document “National Health Service Model Engineering Specification, Thermostatic Mixing Valves (Healthcare Premises)” D 08; latest applicable revision.
- 5.3 Three valves must be selected from a minimum sample batch size of 30 valves. A representative of the test laboratory, a BuildCert auditor, a TAP committee member, or an independent third party approved by the TAP shall select the valves for test. Test samples selected shall be kept under the possession and control of the person making the selection and packaged and sealed in their presence. A letter documenting the person(s) making the selection and verifying the chain of custody of the samples must be forwarded to BuildCert for inclusion within the test file.

**Note:** It is not permissible to transport valves by air without adequate protection against damage e.g. by freezing or depressurisation, as the performance of the valve may be affected. One of the test samples will be retained by the Scheme for comparison purposes.

BuildCert will retain one sample for comparison with future production batches as required. Care should be taken when transporting potentially hazardous chemicals.

- 5.4 Valves will be required to undergo/comply with the following:
- a) Mechanical testing. (Tests will not commence until the test laboratory has received the testing requirements designated by the TAP and the tests for the effects on water quality have been verified as being acceptable unless instructed otherwise by the client). Applicants are notified that it may be necessary to destroy or mutilate a fitting for the purpose of examination or test.
  - b) Have a current WRAS approval, this will validate that the non-metallic materials in contact with water comply with the requirements of BS 6920.
- 5.5 Negotiations with a designated test laboratory and the payment of the laboratory’s testing fee are the responsibility of the applicant, who shall arrange for the Scheme to be provided with a copy of the test report.
- 5.6 Applicants agree by submitting an application form (TMV2 or TMV3) to abide by the terms and conditions of the scheme and the audit procedure, refer to the BuildCert website ([www.buildcert.com](http://www.buildcert.com)).
- 5.7 Any applicant who submits a valve to the scheme, which is advertised as having TMV3 approval without possessing a current certificate, must understand that a new unique

product identity will be required before certification will be granted; similarly TMV2 approval cannot be claimed until the certificate has been issued. The Schemes misuse rules are available on the BuildCert website [www.buildcert.com](http://www.buildcert.com)

## **6. SCHEMES PROCEDURES**

- 6.1 **TMV3 approval** each application for a product type must be made on a separate TMV3 form including all the designations of use.
- 6.2 **TMV2 approval** each application for a product type must be made on a separate TMV2 form and must indicate the pressure application (high or low pressure, or both) for the valve.
- 6.3 When a completed application form has been received the scheme administrator/manager will review the information supplied and agree with the TAP the testing schedule for TMV3 valves (only), verify if the applicants Quality system is acceptable and arrange a BuildCert audit if required. The applicant will then be issued with a letter detailing the BuildCert sample number, testing to be undertaken and an administration invoice.
- 6.4 Applications will be cancelled which have been on the Scheme's files for more than twelve months.
- 6.5 It is a pre-requisite of the BuildCert/TMV Scheme that the valve(s) must satisfy the requirements of the Water Supply (Water Fittings) Regulations 1999 and be WRAS approved before TMV2 or TMV3 approval can be granted.
- 6.6 When the tests have been completed the test laboratory will forward the test results and a report to the TAP along with one test sample (B), which is to be retained by the scheme (see 5.3). The TAP will then decide as to whether the product passes or fails to meet the requirements of the product standard (BS EN 1111 and or BS EN 1287 or D 08) and the additional requirements of the Scheme. The BuildCert manager will notify the applicant of the schemes decision, if successful an approval letter and certificate will be issued along with the schemes invoice for approval; an additional invoice for professional fees will be attached for additional work above that normally expected for an application or as and when necessary.
- 6.7 If the fitting satisfies all the schemes requirements then a Licence for TMV2 or TMV3 Approval will be granted and a description of the product will be entered in the BuildCert/TMV Schemes web site.
- 6.8 Approval will relate solely to the product(s) referred to in the approval letter. Statements by applicants in sales literature must refer only to the specifically approved product (s) as designated by the manufacturers unique model reference.
- 6.9 Approved products require audit testing within the 5-year approval period (TMV3 twice, TMV2 once). The license holder will be notified when audit testing is required; an audit application form must then be completed and returned to BuildCert who will specify the valves and tests needed for auditing. The license holder must then liaise with the test house to undertake the audit testing.

6.10 Approval may be withdrawn for the following reasons: -

- a) Expiration of licence.
- b) Failure of audit.
- c) Failure to maintain ISO 9001 or an approved quality system accreditation.
- d) Serious product failure.
- e) License holder's request
- f) Accumulation of penalty points for misuse issues

## **7. MODIFICATION TO APPROVED PRODUCTS**

- 7.1 A modification to a previously listed fitting must be made on Form TMV2 or TMV3. The exact details of the modification should be stated and highlighted in a general assembly drawing.
- 7.2 The TAP will then determine test requirements for the modified products.
- 7.3 Test reports from the BuildCert approved test laboratory will then be required as well as a sample valve, which is to be retained by the Scheme. The TAP will then agree if the modification can be accepted as having no detrimental effect upon the valves performance.

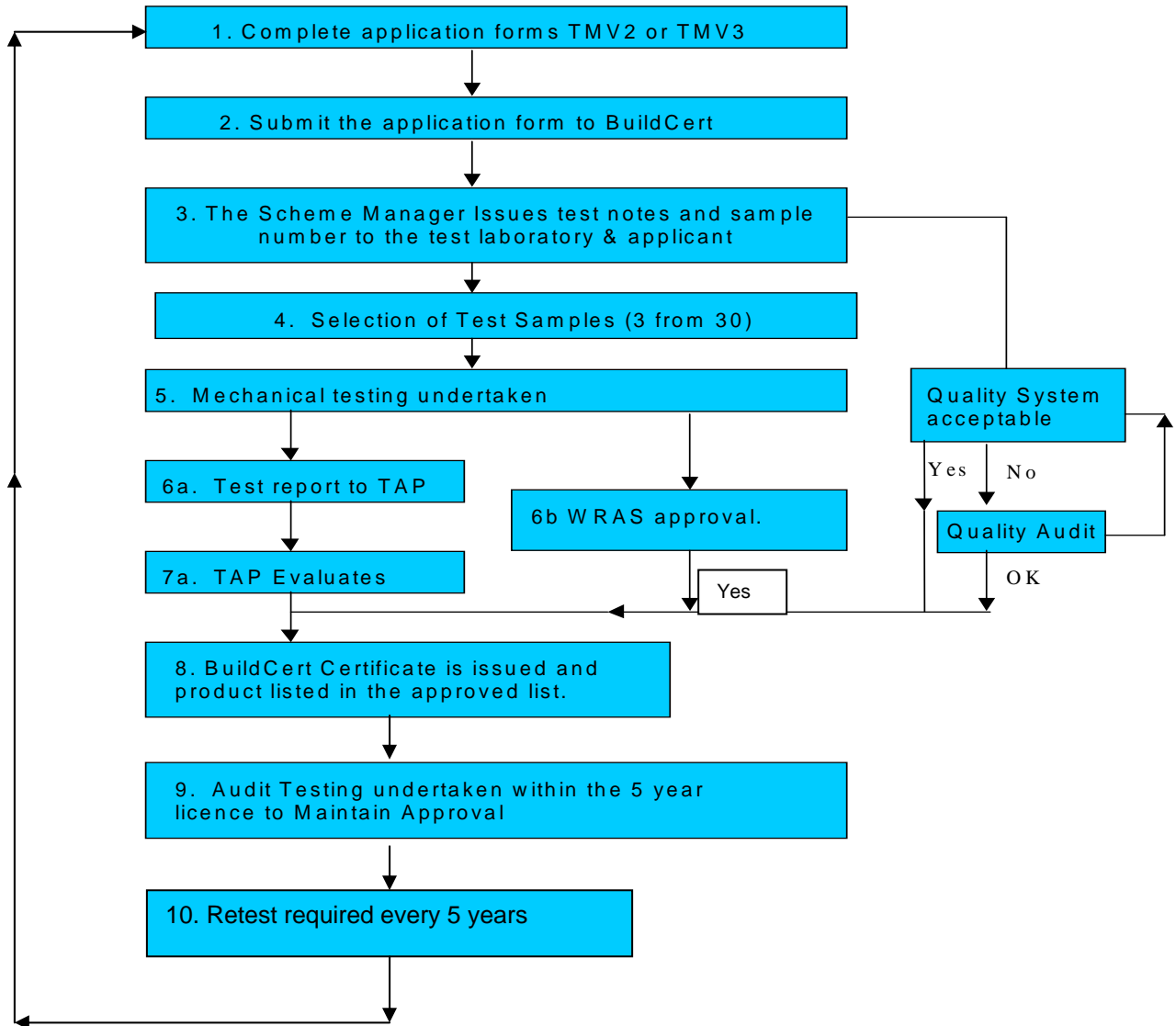
## **8. FEES**

- 8.1 A BuildCert administration invoice is raised upon receipt of an application and a certificate fee and listing fee is invoiced upon approval being confirmed by the TAP. An annual membership fee for TMV2 or TMV3 will be required as well as charges applied for any amendments to the approval as applicable. Professional fees will be applied for any extended work required over that usually expected.

## **9. APPEALS**

- 9.1 Appeals about decisions made in the first instance should be addressed to the TAP.
- 9.2 In the event of irreconcilable differences between and applicant and the TAP, any appeal will be forwarded to the Chairman of the Industry forum and the Chairman of the BuildCert Advisory Committee for their consideration.

## TMV2 & TMV3 APPROVAL



**TAP = Technical Assessment Panel**

### Appendix A

BuildCert Approved test laboratories  
TMV3 and TMV2 TESTING

|   |   |
|---|---|
| <p>WRc-NSF Ltd<br/>Unit 30, Fern Close<br/>Pen-y-Fan Industrial Estate<br/>Oakdale<br/>Gwent<br/>NP11 3EH<br/>Tel: 0044 (0)1495 236260<br/>Fax: 0044 (0)1495 249234<br/>Email: ian.broad@wrcnsf.com<br/>All Designations of use</p> | <p>Kiwa N.V<br/>Sir W. Churchill-laan 273<br/>Postbus 70<br/>2280 AB Rijswijk<br/>The Netherlands<br/>Tel 0031 704144510<br/>Fax 0031 704144422<br/>Email rob.van.deursen@kiwa.nl<br/>All Designations excluding LP-T44 and T46</p> |
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