



BUILD CERT DISTRIBUTION TEMPERING CONTROL SCHEME (DTC Scheme)

1. Thank you for your recent enquiry, the information below explains the Scheme's procedures and requirements. The application form DTC2 must be completed and returned to the Schemes administrator to progress the approval.
2. The BuildCert Distribution Tempering Control Scheme provides 3rd party certification of tempering valves against: -

BS EN 15092: Building Valves – Inline hot water supply tempering valves – tests and requirements, excluding acoustic requirements. The DTC Scheme additionally verifies that tempering valves can operate at a higher mixed water outlet temperature of between 55 and 60 °C so as to comply with the requirements of the UK Water Supply (Water Fitting) Regulations 1999 G18.2 and with Part G of the Building Regulations clause 3.63. Factory set valves must be set at between ≥ 55 and 60 °C.
3. The BuildCert Certification Scheme ensures that tempering valves continue to meet the schemes requirements by ensuring that: -
 - Every 5 years the tempering valve meets the performance requirements of the standard
 - The manufacturer/factor has a recognised quality system in place
 - The tempering valve satisfies the BuildCert performance audit requirements (audit testing within the 5 years approval period)
4. **GENERAL INFORMATION**
 - 4.1 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.
 - 4.2 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.
 - 4.3 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 see the BuildCert website www.buildcert.com or contact the Secretary of the Scheme.
 - 4.4 Valves identification must be permanent and legible and include:
 - The manufacturers name, trade mark or identification mark
 - Name or model number of the valve
 - The set outlet temperature range
 - Inlets marked to identify the hot and cold inlets and the mixed water outlet



- 4.5 The Technical Assessment Panel (TAP) comprises independent experts who confirm the test and audit requirements and review if necessary the test and audit reports and the additional Schemes requirements in accordance with BuildCert policies.
- 4.6 The laboratory undertaking the tests must be approved by BuildCert prior to tests commencing and comply with ISO 17025 and have within its scope of accreditation BS EN 15092 and be recognised by UKAS as a test laboratory. For testing to EN 15092 BuildCert reserve the right to require inter-laboratory trials and to carry out site inspections. The list of approved test laboratories can be found in Annex A.
- 4.7 Conditions of use

	Limits of use	Recommended limits for operation
Dynamic pressure	0.2 bar min	$1 \text{ bar} \leq P \leq 5 \text{ bar}$
Static pressure	10 bar max	
Hot water inlet temp	$T \leq 90^{\circ}\text{C}$	$60^{\circ}\text{C} \leq T \leq 80^{\circ}\text{C}$
Cold water inlet temp	$T \leq 25^{\circ}\text{C}$	$T \leq 25^{\circ}\text{C}$
Distribution (outlet) temp	$45^{\circ}\text{C} \leq T \leq 65^{\circ}\text{C}$	$UK 55^{\circ}\text{C} \leq T \leq 60^{\circ}\text{C}$

NOTES: Valves will not be approved for any conditions of use for which testing has not been undertaken; therefore licensed valves operating outside these conditions cannot be guaranteed by the Scheme to operate as meeting the requirements of EN 15092.

Tempering valves are intended to be used adjacent to hot water storage heaters to provide tempered water up to the terminal fittings and are not intended to control the water temperature at the point of use. **A tempering valve is not a safety device.** Safety devices are thermostatic mixing valves being TMV2 or TMV3 approved.

Type 1 valves are non-adjustable valves having a pre-set temperature of 55 to 60°C.

Type 2 valves are adjustable with a pre-set temperature set by the manufacturer of the valve.

5. **SUBMISSION OF APPLICATION**

- 5.1 An applicant wishing to submit a Distribution tempering valve for approval must complete Form DTC2 and return it to:

BuildCert Ltd
30 Fern Close, Pen-y-Fan Industrial Estate
Oakdale, Gwent, NP11 3EH
United Kingdom, Email: paul.taylor@wrcnsf.com Tel +44(0)1495 236260



5.2 It is imperative that each column on the reverse side of the form (Schedule of Materials) is completed. And that copies of the companies ISO 9001 or details of an approved quality system and its scope of accreditation be sent along with all the relevant documents requested in the application form.

5.3 Only production valves will be considered for certification.

6. TEST REQUIREMENTS

6.1 Valves will be tested in accordance with the documents BS EN 15092: Building Valves – Inline hot water supply tempering valves – tests and requirements. Excluding the acoustic requirements unless otherwise requested by the client. Additional testing will be undertaken on type 2 valves to ensure that the valve can satisfy the UK regulatory requirements when tested at between 55 and 60 °C, the following tests will be applied: -

- Clause 7.3 Verification of the set mixed water outlet temperature
- Clause 7.7 Test for thermal shut off with cold water supply failure
- Clause 7.8 Test for temperature stability with changing inlet pressure

6.2 Valves undergoing testing of a size up to and including DN25: Three valves shall be selected from a minimum sample batch size of 30 samples. Valves undergoing testing of a size greater than DN25: valve selection will be agreed between BuildCert and the applicant.

A representative of the test laboratory, 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.

6.3 Valves will be required to comply with the following:

- a) The non-metallic materials in contact with the water must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999 i.e. they must comply with BS 6920 as detailed in the Regulators Specifications.
- b) Mechanical tests. (These tests will not commence until the laboratory has received the testing requirements designated by BuildCert and the tests for the effects on water quality have been verified as being acceptable).



Applicants are warned that it may be necessary to destroy or mutilate a fitting for the purpose of examination or test.

- 6.4 Negotiations with a designated 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. If the report is adverse, the Scheme reserves the right to investigate further.
- 6.5 Applicants agree by submitting an Application Form (DTC 2) to abide by the terms and conditions of the Scheme and the Schemes auditing procedures a copy of the procedure is available on the BuildCert website (www.buildcert.com).
- 6.6 Any applicant who submits a valve to the Scheme, which is advertised as having DTC Scheme approval without possessing a current certificate, must understand that a new unique product identity will be required before certification will be granted; similarly DTC Scheme approval cannot be claimed until the certificate has been issued.

7. SCHEMES PROCEDURES

- 7.1 DTC Scheme approval, each application for a Product Type must be made on a separate DTC2 form.
- 7.2 When a completed application form has been received the Secretary will review the information supplied and agree the testing schedule, verify the Quality systems are in place and audit if required and issue the applicant with a sample number and administration invoice. This information will be forwarded to the client and the designated test house (see appendix A).
- 7.3 Applications will be cancelled which have been on the Scheme's files for more than twelve months where the delay is either due to the lack of information from the applicant, the absence of a modified sample or the lack of approval certification that the materials of construction are acceptable.
- 7.4 When the performance tests have been completed the test laboratory will forward the test results and a report to the TAP along with the test sample B, which is to be retained by the Scheme. The TAP will then verify that the product satisfies the requirements of the product standard (BS EN 15092) and the additional requirements of the Scheme. If the fitting satisfies all the Schemes requirements then a Licence for DTC Scheme approval will be granted, and a description of the product will be entered in the BuildCert/DTC Scheme web site. This will be detailed in an approval letter and approval certificate, the Schemes invoice for approval will also be attached as will an invoice for any additional work above that normally expected for an application.



- 7.5 Approval will relate solely to the product(s) referred to in the formal 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.
- 7.6 Approved products require re-testing (audit) once every 5 years to maintain approval. 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 houses to undertake the audit testing.
- 7.7 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 issue

8. MODIFICATION TO APPROVED PRODUCTS

- 8.1 A modification to a previously listed fitting must be made on Form DTC2, technical data and supporting test data where appropriate should also be submitted with the application form.
- 8.2 Test requirements for modified products will be identified by the TAP and the appropriate test house will be notified.

9. FEES

- 9.1 A BuildCert administration invoice is raised upon receipt of an application and a certificate fee and listing fee are invoiced upon approval being confirmed by the TAP. An annual membership fee for BuildCert membership 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.

10. APPEALS

- 10.1 Appeals about decisions made in the first instance should be addressed to the TAP.
- 10.2 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.



Annex A

Approved test laboratories

BS 6920 test laboratories

WRC-NSF Ltd Unit 30, Fern Close Pen-y-Fan Industrial Estate Oakdale, Gwent, NP11 3EH Tel: 01495 236260 Fax: 01495 249234 Email: mark.norris@wrcnsf.com	LGC (Teddington) Ltd Queens Road Teddington, Middlesex, TW11 0LY Tel: 020 8943 7000 Fax: 020 8943 2767 Email: steve.kippin@lgc.co.uk
The Water Quality Centre Spencer House Manor Farm Road, Reading RG2 0JN Tel: 0118 9236214 or 6219 Fax: 0118 9236373 Email: WQC.materials.testing@materialtesting.co.uk	Intertek Testing & Certification Ltd Intertek House Cleeve road, Leatherhead, Surrey KT22 75B Tel 01372 370900 Fax 01372 370999 Email gill.middleton@intertek.com

Mechanical test laboratories

WRC-NSF Ltd Unit 30, Fern Close Pen-y-Fan Industrial Estate Oakdale, Gwent, NP11 3EH Tel: 01495 236260 Fax: 01495 249234 Email: kevin.webb@wrcnsf.com	
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DTC Scheme Approval

