SOUTH QUALITY

PROFICIENCY TESTING PROVIDER

REPORT No 11665

Date of issue: *May 4, 2026*

Status: FINAL REPORT

****

HEALTH TECHNICAL MEMORANDUM 04-01

SUPPLEMENT PERFORMANCE SPECIFICATION D 08: THERMOSTATIC MIXING VALVES (HEALTHCARE PREMISES)

Program: SQ-6045

****

Prepared by:	Reviewed by:	Approved by:
cn=BERENICE C. FERREL, o=PT SOUTH QUALITY SAS, ou=SOUTH QUALITY, email=tech@ptsouthquality.com, c=AR 2026.05.04 17:00:13 -03'00'	cn=ESTHER CASAS, o=PT SOUTH QUALITY SAS, ou=SOUTH QUALITY, email=ecasas@ptsouthquality.com, c=AR 2026.05.05 09:43:41 -03'00'	cn=Emiliano Medina, o=SOUTH QUALITY, ou=PT SOUTH QUALITY SAS, email=quality@ptsouthquality.com, c=ES 2026.05.06 16:35:20 -03'00'
Berenice Ferrel Assistant Technician	**Lic. Esther Casas** Physics expert	**Eng. Emiliano Medina** Quality Assurance Lead

TABLE OF CONTENTS

1. FOREWORD

This report summarizes the results of the **SQ-6045** proficiency testing program on the determination of compliance with the general requirements. This program carried out in a bilateral format, following the "split-sample" design described in clause A.4.2 of ISO/IEC 17043: 2023 (Alternative interlaboratory comparisons).

South Quality conducted the testing program in February 2026 with the aim of assessing the laboratory's ability to competently perform the designated tests.

2. ORGANIZATION

Program Coordinator:	Lic. Esther Casas
Assistant Technician:	Berenice Ferrel
Statistic:	Lic. Manuel Tozaki
Supervision:	Eng. Emiliano Medina

3. OBJECTIVE

The objective of this proficiency testing program is to determine verification of compliance with the performance, material requirements and test methods for thermostatic mixing valves for use in healthcare premises, using the following standard:

Standard
Health Technical Memorandum 04-01 - 2017

To verify this, batches of thermostatic mixing valve samples have been selected.

Participants in this program have not been previously informed about the expected behavior of the samples they receive.

4. PARTICIPANT

Company:	**Kiwa Netherlands**
Laboratory:	**Drinking water laboratory**
Country:	The Netherlands
Client ID:	E510
Contact person:	Mitchell Burgwal Laboratory coordinator mitchell.burgwal@kiwa.com

5. HOMOGENEITY

Several batches were prepared identically by the staff at South Quality.

Subsequently, a homogeneity study was conducted with an ISO/IEC 17025 accredited laboratory.

The control process followed ISO 33405: 2024, clauses 7.4.1.1 / 7.4.1.2. Stratified random sampling was applied, and samples were selected using random number generation software.

The results of this test are presented below:

Size of each batch: **250 units** Tested samples from each batch: **25 units**

HTM 04-01 Clause No	Homogeneity of results in the analyzed samples		
	Batch: LMI2792	Batch: LMI2793	Batch: LMI2794
5.4	YES	YES	YES
5.5	YES	YES	YES
5.6	YES	YES	YES
5.7	NA	NA	NA
5.8	NA	NA	NA
6.1	NA	NA	NA
6.2	NA	NA	NA
6.3	YES	YES	YES
7.3	YES	YES	YES
7.5	NA	NA	NA
7.6	NA	NA	NA
7.7	YES	YES	YES
7.8	NA	NA	NA
7.9	YES	YES	YES
7.10	YES	YES	YES
7.11	YES	YES	YES
7.12	YES	NO	YES
8.0	YES	YES	YES
9.0	YES	YES	YES
10.0	YES	YES	YES

Samples for this program are taken from the selected batch identified as **LMI2792**.

For the indicated batch, the values determined in the homogeneity study are utilized as the assigned values.

The analysis of the test data indicated that the selected samples exhibited sufficient homogeneity for the program. Therefore, the results of participants identified as outliers cannot be attributed to sample variability.

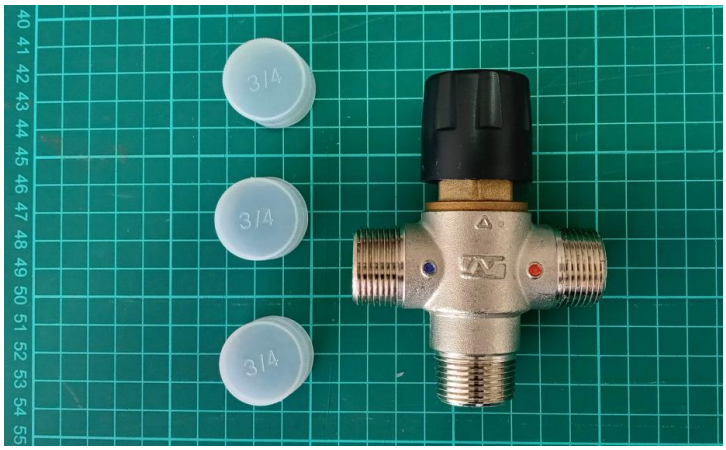
6. SAMPLE INFORMATION

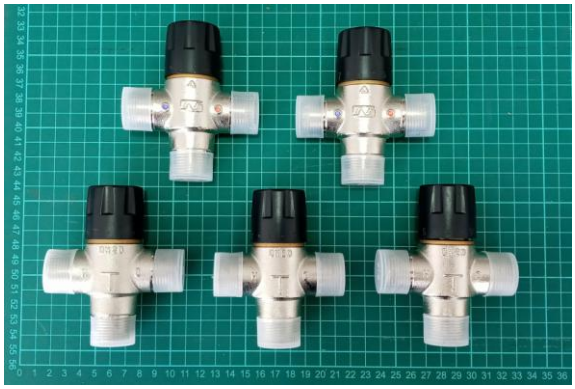
The following samples were sent for testing:

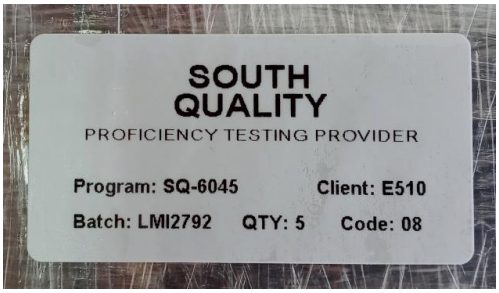
Batch:	LMI2792
Sample ID:	08
Characteristics:	Thermostatic mixing valve - 5 units

7. IMAGES

SAMPLES







8. ASSIGNED VALUES

BATCH: LMI2792		
CLAUSE	**REQUIREMENT**	**VERDICT**
5.4	Leaktightness of the thermostatic mixing valve upstream of the obturator and of the obturator	PASS
5.5	Leaktightness of the obturator of the thermostatic mixing valve: cross flow between hot and cold water	PASS
5.6	Leaktightness of the thermostatic mixing valve downstream of the obturator	PASS
5.7	Leaktightness of the manual diverter of the thermostatic mixing valve	N/A
5.8	Leaktightness of the diverter with automatic return of the thermostatic mixing valve	N/A
6.1	Durability of on/off (flow) control	N/A
6.2	Durability of diverters	N/A
6.3	Durability of thermostat	PASS
7.3	Flow rate and sensitivity of temperature control	PASS
7.5	Mixed water temperature overshoot on operation of diverter (manual or automatic return)	N/A
7.6	Mixed water temperature overshoot on operation of second outlet	N/A
7.7	Mixed water temperature overshoot on starting from ambient	PASS
7.8	Mixed water temperature overshoot on adjustment of mixed water temperature	N/A
7.9	Thermal shut-off	FAIL
7.10	Temperature stability with changing water supply pressure	FAIL
7.11	Temperature stability with changing water supply temperature	PASS
7.12	Temperature stability at reduced flow rate	FAIL

9. PARTICIPANT RESULTS (SEE APPENDIX B)

CODE: LMI2792-08		
CLAUSE	**REQUIREMENT**	**VERDICT**
5.4	Leaktightness of the thermostatic mixing valve upstream of the obturator and of the obturator	PASS
5.5	Leaktightness of the obturator of the thermostatic mixing valve: cross flow between hot and cold water	PASS
5.6	Leaktightness of the thermostatic mixing valve downstream of the obturator	PASS
5.7	Leaktightness of the manual diverter of the thermostatic mixing valve	N/A
5.8	Leaktightness of the diverter with automatic return of the thermostatic mixing valve	N/A
6.1	Durability of on/off (flow) control	N/A
6.2	Durability of diverters	N/A
6.3	Durability of thermostat	PASS
7.3	Flow rate and sensitivity of temperature control	PASS
7.5	Mixed water temperature overshoot on operation of diverter (manual or automatic return)	N/A
7.6	Mixed water temperature overshoot on operation of second outlet	N/A
7.7	Mixed water temperature overshoot on starting from ambient	PASS
7.8	Mixed water temperature overshoot on adjustment of mixed water temperature	N/A
7.9	Thermal shut-off	FAIL
7.10	Temperature stability with changing water supply pressure	FAIL
7.11	Temperature stability with changing water supply temperature	PASS
7.12	Temperature stability at reduced flow rate	FAIL

10. STATISTICS

The results must be treated as qualitative.

For qualitative results, the comparison will be made directly against the assigned values, so any difference will be evaluated as **Unsatisfactory**.

11. EVALUATION OF PERFORMANCE

CLAUSE	REQUIREMENT	BATCH: LMI2792		PERFORMANCE RESULT
		PARTICIPANT RESULT	ASSIGNED VALUE	
5.4	Leaktightness of the thermostatic mixing valve upstream of the obturator and of the obturator	PASS	PASS	**SATISFACTORY**
5.5	Leaktightness of the obturator of the thermostatic mixing valve: cross flow between hot and cold water	PASS	PASS	**SATISFACTORY**
5.6	Leaktightness of the thermostatic mixing valve downstream of the obturator	PASS	PASS	**SATISFACTORY**
5.7	Leaktightness of the manual diverter of the thermostatic mixing valve	N/A	N/A	**SATISFACTORY**
5.8	Leaktightness of the diverter with automatic return of the thermostatic mixing valve	N/A	N/A	**SATISFACTORY**
6.1	Durability of on/off (flow) control	N/A	N/A	**SATISFACTORY**
6.2	Durability of diverters	N/A	N/A	**SATISFACTORY**
6.3	Durability of thermostat	PASS	PASS	**SATISFACTORY**
7.3	Flow rate and sensitivity of temperature control	PASS	PASS	**SATISFACTORY**
7.5	Mixed water temperature overshoot on operation of diverter (manual or automatic return)	N/A	N/A	**SATISFACTORY**
7.6	Mixed water temperature overshoot on operation of second outlet	N/A	N/A	**SATISFACTORY**
7.7	Mixed water temperature overshoot on starting from ambient	PASS	PASS	**SATISFACTORY**
7.8	Mixed water temperature overshoot on adjustment of mixed water temperature	N/A	N/A	**SATISFACTORY**
7.9	Thermal shut-off	FAIL	FAIL	**SATISFACTORY**
7.10	Temperature stability with changing water supply pressure	FAIL	FAIL	**SATISFACTORY**
7.11	Temperature stability with changing water supply temperature	PASS	PASS	**SATISFACTORY**
7.12	Temperature stability at reduced flow rate	FAIL	FAIL	**SATISFACTORY**

12. CONCLUSIONS

The overall performance of this **SQ-6045** program from the participant laboratory **KIWA NETHERLANDS - DRINKING WATER LABORATORY**, is **SUFFICIENT** based on expected results.

The criteria used for the evaluation of the overall performance is the following:

- **SUFFICIENT** performance: No unsatisfactory results were obtained.
- **INSUFFICIENT** performance: An unsatisfactory result was obtained.

APPENDIX A

INSTRUCTIONS

SOUTH QUALITY
PROFICIENCY TESTING PROVIDER

INSTRUCTIONS

PROGRAM:	Health Technical Memorandum 04-01: Supplement Performance specification D 08: thermostatic mixing valves (healthcare premises)
CODE:	SQ-6045
VERSION:	-
STANDARD:	Health Technical Memorandum 04-01
COORDINATOR:	Lic. Esther Casas (ecasas@ptsouthquality.com)

1 - General

This document serves as a guide for managing the results of the **SQ-6045** program.

2 - Standard / Method

Health Technical Memorandum 04-01 - 2017

3 - Tests involved

TEST
Verification of compliance with the performance, material requirements and test methods for thermostatic mixing valves for use in healthcare premises (Complete standard - Testing according Fig. 1)

4 - Samples

CODE	SAMPLE	QUANTITY
LMI2792-08	Thermostatic mixing valve	5

5 - Notes

a) Being a bilateral program, there is no deadline for submitting results.
b) Five samples are provided for testing. The participant must select three to perform the tests as shown in Figure 1 and keep two in reserve for retesting if needed.
c) The participant must submit the results using the usual report employed by their laboratory.
d) Samples must be retained until the end of the program, which concludes with the submission of the final report.
e) To review the results, test images would be appreciated. Images can be attached at the end of this document or sent by email.

PHOTOGRAPHS

APPENDIX B

PARTICIPANT RESULTS (TEST REPORT)

Order number: XXXXXX
Kiwa report number: XXXXX-TR-rev0

kiwa

Date of report 27 February 2026

Test report for Thermostatic mixing valves
(Healthcare premises)
on the basis of
NHS D08

Applicant	South Quality		
Manufacturer	South Quality		
Tested products			
Model no.	LMI2792-08	LMI2792-08	LMI2792-08
Designation	Sample A (HP-T44)	Sample B (HP-T44)	Sample C (HP-T44)
Kiwa reference number(s):	A14235		
Date of test	16-09-2025 – 20-02-2026		
Tests performed by	P. Dubbelman, test engineer		
Reference documents	NHS Model engineering specifications - D 08 "Thermostatic mixing valves (Healthcare premises)" -2017 edition		
Authorised by			

M. Burgwal
Lab. Coordinator
Unit Water & Gas Installations

International accredited testing laboratory in accordance with EN ISO/IEC 17025
www.rva.nl
The RvA is participant in ILAC MRA

Kiwa Nederland BV
Sir W. Churchilllaan 273 - P.O. Box 70 - 2280 AB Rijswijk - The Netherlands
Telephone: +31 (0)88 998 4400 - Telefax:+31 88 998 4420 - www.kiwa.nl

1 *Summary of tests*

The following test according to the clauses of NHS D08, 2017 edition have been conducted

		Pass	Fail	NPD	N/A
5.4	Leaktightness of the thermostatic mixing valve upstream of the obturator and of the obturator	☒	☐	☐	☐
5.5	Leaktightness of the obturator of the thermostatic mixing valve: cross flow between hot and cold water	☒	☐	☐	☐
5.6	Leaktightness of the thermostatic mixing valve downstream of the obturator	☒	☐	☐	☐
5.7	Leaktightness of the manual diverter of the thermostatic mixing valve	☐	☐	☐	☒
5.8	Leaktightness of the diverter with automatic return of the thermostatic mixing valve	☐	☐	☐	☒
6.1	Durability of on/off (flow) control	☐	☐	☐	☒
6.2	Durability of diverters	☐	☐	☐	☒
6.3	Durability of thermostat	☒	☐	☐	☐
7.3	Flow rate and sensitivity of temperature control	☒	☐	☐	☐
7.5	Mixed water temperature overshoot on operation of diverter (manual or automatic return)	☐	☐	☐	☒
7.6	Mixed water temperature overshoot on operation of second outlet	☐	☐	☐	☒
7.7	Mixed water temperature overshoot on starting from ambient	☒	☐	☐	☐
7.8	Mixed water temperature overshoot on adjustment of mixed water temperature	☐	☐	☐	☒
7.9	Thermal shut-off	☐	☒	☐	☐
7.10	Temperature stability with changing water supply pressure	☐	☒	☐	☐
7.11	Temperature stability with changing water supply temperature	☒	☐	☐	☐
7.12	Temperature stability at reduced flow rate	☐	☒	☐	☐
8.0*	Designation	☐	☐	☒	☐
9.0	Marking	☐	☐	☒	☐
10.0*	Installation and operating instructions	☐	☐	☒	☐

* Tests are **not** conducted under accreditation according to ISO/IEC 17025

Remark:
none

2 *Sampling, sample preparation and conditioning*

The sampling has **not** been carried out by Kiwa and is therefore not making part of the ISO/IEC 17025 accreditation.

Preparation, conditioning, test sequence and test set-up of the valves, is in accordance with the requirements of the NHS D08, 2017 edition.

3 *Measurement uncertainty of testing in the context of ISO/IEC 17025*

The pass/fail decision in this report is made, independently of the measurement uncertainty. Estimated uncertainties for activities carried out under accreditation are available on request.

4 *Test results*

Article numbers as mentioned below refer to the NHS D08.
Results are marked red, when not in compliance with the requirements.
Results marked with "NPD" when no performance was determined.
Results marked with "N/A" when requirements are not applicable.

Where applicable, graphs of the temperature transients are available on request.

5 *Leaktightness*

a. Leaktightness of the thermostatic mixing valve upstream of the obturator and of the obturator (article 5.4)

	sample A
test pressure (bar)	16
duration of test (sec.)	60

test result ☒ pass ☐ fail ☐ NPD ☐ N/A

b. Leaktightness of the obturator of the thermostatic mixing valve: cross flow between hot and cold water (article 5.5)

	sample A
cold water side	
test pressure (bar)	4
duration of test (sec.)	60
hot water side	
test pressure (bar)	4
duration of test (sec.)	60

test result ☒ pass ☐ fail ☐ NPD ☐ N/A

c. Leak tightness of the thermostatic mixing valve downstream of the obturator (article 5.6)

	sample A
test pressure (bar)	4
test pressure reduced (bar)	0,2
duration of test (sec.)	60

test result ☒ pass ☐ fail ☐ NPD ☐ N/A

d. Leak tightness of the manual diverter of the thermostatic mixing valve (article 5.7)

	sample A
static water pressure (bar)	
reduced static water pressure (bar)	

test result ☐ pass ☐ fail ☐ NPD ☒ N/A

e. Leaktightness of the diverter with automatic return of the thermostatic mixing valve (article 5.8)

	sample A
initial flow pressure (bar)	
reduced flow pressure (bar)	

test result ☐ pass ☐ fail ☐ NPD ☒ N/A

6 *Durability*

a. Durability of on/off (flow) control (article 6.1)

	sample A
hot water temperature (°C)	
cold water temperature (°C)	
hot water supply pressure (bar)	
cold water supply pressure (bar)	

test result ☐ pass ☐ fail ☐ NPD ☒ N/A

b. Durability of diverters (article 6.2)
design: automatic

	sample A
hot water temperature (°C)	
cold water temperature (°C)	
hot water supply pressure (bar)	
cold water supply pressure (bar)	
flow rate (l/min)	

test result ☐ pass ☐ fail ☐ NPD ☒ N/A

c. Durability of thermostat (article 6.3)

	sample B
hot water temperature (°C)	64,5
cold water temperature (°C)	19,5
hot water supply pressure (bar)	3
cold water supply pressure (bar)	3
flow rate (l/min)	15
mixed water temperature (°C)	43

test result ☒ pass ☐ fail ☐ NPD

7 *Performance*

a. Flow rate and sensitivity of temperature control (article 7.3)

	sample A
hot water temperature (°C)	57,0
cold water temperature (°C)	14,4
hot water pressure loss (bar)	1,0
cold water pressure loss (bar)	1,0

	sample A
setting 1	
mixed water temperature (°C)	40,5
flow rate (l/min)	26,8
outlet pressure (bar)	2
setting 2	
mixed water temperature (°C)	44,7
flow rate (l/min)	24,4
outlet pressure (bar)	2
setting 3	
mixed water temperature (°C)	47,6
flow rate (l/min)	22,8
outlet pressure (bar)	2
setting 4	

kiwa

	sample A
mixed water temperature (°C)	
flow rate (/min)	
outlet pressure (bar)	
setting 5	
mixed water temperature (°C)	
flow rate (/min)	
outlet pressure (bar)	

Measured sensitivity: 10 (degrees angular/K or mm/K)

test result flow rate ☒ pass ☐ fail ☐ NPD ☐ N/A

test result sensitivity ☒ pass ☐ fail ☐ NPD ☐ N/A

b. Initial settings for thermal performance tests (article 7.4)

	sample A	sample B	sample C
hot water temperature (°C)	57 +/- 1	57 +/- 1	57 +/- 1
cold water temperature (°C)	15+/- 1	15+/- 1	15+/- 1
mixed water temperature (°C)	44 +0/-2	44 +0/-2	44 +0/-2
hot water supply pressure (bar)	3 +/- 0,2	3 +/- 0,2	3 +/- 0,2
cold water supply pressure (bar)	3 +/- 0,2	3 +/- 0,2	3 +/- 0,2
mixed flow rate (l/min)	20 +/-1	20 +/-1	20 +/-1

c. Mixed water temperature overshoot on operation of diverter (manual or automatic return) (article 7.5)

test result ☐ pass ☐ fail ☐ NPD ☒ N/A

d. Mixed water temperature overshoot on operation of second outlet (article 7.6)

test result ☐ pass ☐ fail ☐ NPD ☒ N/A

kiwa

e. Mixed water temperature overshoot on starting from ambient (article 7.7)

Sample A art. 7.7 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	56,3	57,0	57,9
cold water temperature (°C)	14,2	14,2	14,4
mixed water temperature (°C)	43,2	43,4	43,3
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (/min)	19,9	20,0	20,0

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	0,53 - 3,00 sec	0,53 - 2,85 sec	0,60 - 2,88 sec	1,73 sec	☒	☐	☐
+5	6.30	0,44 - 2,42 sec	0,38 - 2,32 sec	0,48 - 2,38 sec	1,40 sec	☒	☐	☐
+6	4.00	0,33 - 1,98 sec	0,19 - 1,86 sec	0,34 - 1,92 sec	1,10 sec	☒	☐	☐
+7	2.50	0,15 - 1,49 sec	0 - 1,40 sec	0,09 - 1,42 sec	0,91 sec	☒	☐	☐
+8	1.90	0 - 0,95 sec	0 - 0,82 sec	0,90 sec	0,89 sec	☒	☐	☐
+9	1.20	0 - 0,24 sec	- sec	- sec	0,24 sec	☒	☐	☐
+10	0.75	- sec	- sec	- sec	- sec	☐	☐	☐
+11	0.50	- sec	- sec	- sec	- sec	☐	☐	☐
+12	0.25	- sec	- sec	- sec	- sec	☐	☐	☐
Restoration temperature		43,3˚C	43,4˚C	43,3˚C				
Maximum temperature		50,4 - 52,2˚C	49,8 - 52,2˚C	50,3 - 52,2˚C				

kiwa

Sample B art. 7.7 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	57,5	57,7	57,6
cold water temperature (°C)	14,8	15,2	15,0
mixed water temperature (°C)	43,5	43,5	43,4
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (/min)	19,9	19,9	19,9

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	0,12 - 2,31 sec	0,68 - 2,27 sec	0,63 - 2,09 sec	1,35 sec	☒	☐	☐
+5	6.3	0 - 1,81 sec	0,59 - 1,81 sec	0,53 - 1,65 sec	1,28 sec	☒	☐	☐
+6	4.0	0 - 1,40 sec	0,47 - 1,41 sec	0,41 - 1,26 sec	0,99 sec	☒	☐	☐
+7	2.5	0 - 1,00 sec	0,32 - 1,00 sec	0,23 - 0,82 sec	0,67 sec	☒	☐	☐
+8	1.9	0 - 0,51 sec	0,08 - 0,50 sec	0 - 0,31 sec	0,35 sec	☒	☐	☐
+9	1.2	sec	sec	sec	sec	☐	☐	☐
+10	0.75	sec	sec	sec	sec	☐	☐	☐
+11	0.5	sec	sec	sec	sec	☐	☐	☐
+12	0.25	sec	sec	sec	sec	☐	☐	☐
Restoration temperature		44,7˚C	44,4˚C	44,1˚C				
Maximum temperature		47,5 - 52,0˚C	51,5 - 52,1˚C	50,9 - 51,7˚C				

kiwa

Sample C art. 7.7 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	57,1	57,2	56,6
cold water temperature (°C)	14,6	14,9	15,2
mixed water temperature (°C)	43,3	43,3	43,4
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (/min)	19,9	19,9	19,9

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	0,70 - 3,10 sec	0,39 - 3,13 sec	0,39 - 3,04 sec	1,79 sec	☒	☐	☐
+5	6.3	0,62 - 2,35 sec	0,27 - 2,41 sec	0,27 - 2,43 sec	1,39 sec	☒	☐	☐
+6	4.0	0,51 - 1,80 sec	0,08 - 1,90 sec	0,11 - 1,90 sec	1,78 sec	☒	☐	☐
+7	2.5	0,37 - 1,36 sec	0 - 1,44 sec	0 - 1,43 sec	1,15 sec	☒	☐	☐
+8	1.9	0,14 - 0,85 sec	0 - 0,98 sec	0 - 0,94 sec	0,73 sec	☒	☐	☐
+9	1.2	0 - 0,27 sec	0 - 0,29 sec	0 - 0,28 sec	0,28 sec	☒	☐	☐
+10	0.75	- sec	- sec	- sec	- sec	☐	☐	☐
+11	0.50	- sec	- sec	- sec	- sec	☐	☐	☐
+12	0.25	- sec	- sec	- sec	- sec	☐	☐	☐
Restoration temperature		43,3˚C	43,5˚C	43,5˚C				
Maximum temperature		51,5 - 42,5˚C	49,5 - 52,5˚C	49,6 - 52,6˚C				

test result ☒ pass ☐ fail ☐ NPD

f. Mixed water temperature overshoot on adjustment of mixed water temperature (article 7.8)

test result ☐ pass ☐ fail ☐ NPD ☒ N/A

g. Thermal shut-off (article 7.9)

Sample A art. 7.9 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	57,4	57,5	57,5
cold water temperature (°C)	15,6	15,7	15,7
mixed water temperature (°C)	43,5	43,6	43,6
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (/min)	20,0	20,0	20,0

Cold water isolation

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	906,22 sec	2,54 - 951,35 sec	901,63 sec	690,44 sec	☐	☒	☐
+5	6.30	906,16 sec	2,08 - 950,53 sec	901,55 sec	690,08 sec	☐	☒	☐
+6	4.00	906,08 sec	1,75 - 950,49 sec	901,46 sec	689,95 sec	☐	☒	☐
+7	2.50	905,98 sec	1,42 - 950,29 sec	901,35 sec	689,76 sec	☐	☒	☐
+8	1.00	896,07 sec	0,90 - 45,53 - 683,92 sec	891,08 sec	503,50 sec	☐	☒	☐
+9	1.20	20,82 sec	0,50 - 13,93 - 137,00 sec	19,89 sec	38,43 sec	☐	☒	☐
+10	0.75	11,44 sec	0,47 sec	6,55 sec	6,15 sec	☐	☒	☐
+11	0.5	- sec	- sec	- sec	- sec	☐	☐	☐
+12	0.25	- sec	- sec	- sec	- sec	☐	☐	☐
Maximum temperature		54,0 °C	53,8 °C	54,2 °C				

Cold water restoration

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+2	>10	1,00 sec	- sec	- sec	1,00 sec	☒	☐	☐
+3	6.3	sec	sec	sec	sec	☐	☐	☐
+4	4.0	sec	sec	sec	sec	☐	☐	☐
+5	2.5	sec	sec	sec	sec	☐	☐	☐
+6	1.9	sec	sec	sec	sec	☐	☐	☐
+7	1.2	sec	sec	sec	sec	☐	☐	☐
+8	0.75	sec	sec	sec	sec	☐	☐	☐
+9	0.5	sec	sec	sec	sec	☐	☐	☐
+10	0.25	sec	sec	sec	sec	☐	☐	☐
+11								
+12								
Restoration temperature		44,2 °C	42,4 °C	44,3 °C				
Maximum temperature		52,2 °C	51,1 °C	52,2 °C				

Hot water isolation

Collection	Test 1	Test 2	Test 3
0 - 5 seconds (ml)	78	68	74
5 - 35 seconds (ml)	218	215	211
Start temperature	43,7 °C	43,5 °C	43,7 °C
Temperature after 5 sec.	43,6 °C	43,3 °C	43,4 °C

Hot water restoration

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	3,00 sec	1,52 sec	3,15 sec	2,56 sec	☒	☐	☐
+5	6.3	2,40 sec	0,88 sec	2,56 sec	1,95 sec	☒	☐	☐
+6	4.0	1,94 sec	- sec	2,08 sec	2,01 sec	☒	☐	☐
+7	2.5	1,50 sec	- sec	1,60 sec	1,55 sec	☒	☐	☐
+8	1.00	0,95 sec	- sec	1,12 sec	1,04 sec	☒	☐	☐
+9	1.2	0,26 sec	- sec	- sec	0,26 sec	☒	☐	☐
+10	0.75	sec	sec	sec	sec	☐	☐	☐
+11	0.5	sec	sec	sec	sec	☐	☐	☐
+12	0.25	sec	sec	sec	sec	☐	☐	☐
Restoration temperature		44,1 °C	43,9 °C	44,2 °C				
Maximum temperature		52,6 °C	49,5 °C	52,9 °C				

Sample B art. 7.9 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	56,6	56,6	57,5
cold water temperature (°C)	15,1	15,0	14,8
mixed water temperature (°C)	43,4	43,4	43,2
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (/min)	19,8	19,8	19,9

Cold water isolation

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	902,43 sec	958,48 sec	902,51 sec	921,14 sec	☒	☐	☐
+5	6.3	187,46 - 646,00 sec	202,09 - 80,00 - 590,00 sec	163,92 - 534,00 sec	343,35 sec	☐	☒	☐
+6	4.0	91,00 - 48,00 - 144,00 - 266,00 - 51,00 sec	82,09 - 533,00 sec	94,92 - 453,00 sec	195,89 sec	☐	☒	☐
+7	2.5	50,00 - 155,00 - 43,00 sec	50,09 - 170,00 sec	63,92 sec	88,67 sec	☐	☒	☐
+8	1.9	30,00 sec	37,09 sec	50,92 sec	39,34 sec	☐	☒	☐
+9	1.2	20,00 sec	30,09 sec	33,92 sec	28,00 sec	☐	☐	☐
+10	0.75	5,00 sec	12,09 sec	13,92 - 6,00 sec	9,25 sec	☐	☒	☐
+11	0.5	2,00 sec	6,09 sec	3,92 sec	4,00 sec	☐	☒	☐
+12	0.25	sec	sec	sec	sec	☐	☐	☐
Maximum temperature		54,4 °C	54,7 °C	54,9 °C				

Cold water restoration

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	bespreken sec	sec	sec	sec	☐	☐	☐
+5	6.3	sec	sec	sec	sec	☐	☐	☐
+6	4.0	sec	sec	sec	sec	☐	☐	☐
+7	2.5	sec	sec	sec	sec	☐	☐	☐
+8	1.9	sec	sec	sec	sec	☐	☐	☐
+9	1.2	sec	sec	sec	sec	☐	☐	☐
+10	0.75	sec	sec	sec	sec	☐	☐	☐
+11	0.5	sec	sec	sec	sec	☐	☐	☐
+12	0.25	sec	sec	sec	sec	☐	☐	☐
Restoration temperature		43,2 °C	43,3 °C	43,3 °C				
Maximum temperature		52,0 °C	51,0 °C	51,5 °C				

Hot water isolation

Collection	Test 1	Test 2	Test 3
0 - 5 seconds (ml)	245	131	99
5 - 35 seconds (ml)	385	158	91
Start temperature	43,4 °C	43,2 °C	43,4 °C
Temperature after 5 sec.	42,2 °C	43,1 °C	43,3 °C

Hot water restoration

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	- sec	2,10 sec	2,18 sec	2,14 sec	☒	☐	☐
+5	6.3	- sec	1,58 sec	1,66 sec	1,62 sec	☒	☐	☐
+6	4.0	- sec	1,14 sec	1,24 sec	1,19 sec	☒	☐	☐
+7	2.3	- sec	0,72 sec	0,80 sec	0,76 sec	☒	☐	☐
+8	1.9	- sec	0,15 sec	0,41 sec	0,28 sec	☒	☐	☐
+9	1.2	sec	sec	sec	sec	☐	☐	☐
+10	0.75	sec	sec	sec	sec	☐	☐	☐
+11	0.5	sec	sec	sec	sec	☐	☐	☐
+12	0.25	sec	sec	sec	sec	☐	☐	☐
Restoration temperature		43,9 °C	44,1 °C	44,1 °C				
Maximum temperature		44,8 °C	51,4 °C	51,7 °C				

Sample C art. 7.9 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	56,9	56,7	57,1
cold water temperature (°C)	15,0	14,8	14,7
mixed water temperature (°C)	43,3	43,3	43,3
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (l/min)	19,9	19,8	19,9

Cold water isolation

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	6,63 - 893,60 sec	901,54 sec	899,82 sec	675,40 sec	☒	☐	☐
+5	6.3	6,36 - 14,45 - 467,04 sec	265,38 sec	276,19 sec	205,88 sec	☐	☒	☐
+6	4.0	6,12 - 14,26 - 49,96 sec	67,61 sec	69,82 - 12,30 - 3,40 - 4,10 sec	27,20 sec	☐	☒	☐
+7	2.5	5,90 - 14,05 - 13,86 sec	47,53 sec	43,14 sec	24,90 sec	☐	☒	☐
+8	1.9	0,53 - 4,65 - 13,84 - 4,39 sec	0,26 - 24,53 sec	31,91 sec	11,44 sec	☐	☒	☐
+9	1.2	0 - 4,23 - 4,04 - 2,71 sec	9,29 sec	6,22 - 9,71 sec	6,03 sec	☐	☒	☐
+10	0.75	sec	sec	sec	sec	☐	☐	☐
+11	0.5	sec	sec	sec	sec	☐	☐	☐
+12	0.25	sec	sec	sec	sec	☐	☐	☐
Maximum temperature		52,9 °C	53,2 °C	53,2 °C				

Cold water restoration

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	- sec	0,60 sec	0,62 sec	0,61 sec	☒	☐	☐
+5	6.3	- sec	0,07 sec	0,13 sec	0,10 sec	☒	☐	☐
+6	4.0	sec	sec	sec	sec	☐	☐	☐
+7	2.5	sec	sec	sec	sec	☐	☐	☐
+8	1.9	sec	sec	sec	sec	☐	☐	☐
+9	1.2	sec	sec	sec	sec	☐	☐	☐
+10	0.75	sec	sec	sec	sec	☐	☐	☐
+11	0.5	sec	sec	sec	sec	☐	☐	☐
+12	0.25	sec	sec	sec	sec	☐	☐	☐
Restoration temperature		43,1 °C	43,5 °C	43,4 °C				
Maximum temperature		48,0 °C	49,3 °C	49,3 °C				

Hot water isolation

Collection	Test 1	Test 2	Test 3
0 - 5 seconds (ml)	35	38	33
5 - 35 seconds (ml)	17	8	7
Start temperature	43,8 °C	43,8 °C	43,4 °C
Temperature after 5 sec.	43,0 °C	42,7 °C	42,2 °C

Hot water restoration

Temp.	limits	Test 1 results	Test 2 results	Test 3 results	Average results	pass	fail	N/A
+4	>10	3,49 sec	3,53 sec	3,46 sec	3,49 sec	☒	☐	☐
+5	6.3	2,97 sec	2,97 sec	2,86 sec	2,93 sec	☒	☐	☐
+6	4.0	2,36 sec	2,46 sec	2,29 sec	2,37 sec	☒	☐	☐
+7	2.5	1,90 sec	1,99 sec	1,82 sec	1,90 sec	☒	☐	☐
+8	1.9	1,44 sec	1,55 sec	1,30 sec	1,43 sec	☒	☐	☐
+9	1.2	0,85 sec	0,96 sec	0,62 sec	0,81 sec	☒	☐	☐
+10	0.75	sec	sec	sec	sec	☐	☐	☐
+11	0.5	sec	sec	sec	sec	☐	☐	☐
+12	0.25	sec	sec	sec	sec	☐	☐	☐
Restoration temperature		42,9 °C	43,5 °C	43,5 °C				
Maximum temperature		53,0 °C	53,2 °C	52,8 °C				

test result ☐ pass ☒ fail ☐ NPD

h. Temperature stability with changing water supply pressure (article 7.10)
Sample A art. 7.10 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	57,3	57,2	57,2
cold water temperature (°C)	15,0	15,2	15,4
mixed water temperature (°C)	43,4	43,7	43,6
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (l/min)	8,7	8,7	8,7

Cold water pressure changes

Change	Test 1 Press. hot	Press. cold	Mixed temp.	Test 2 Press. hot	Press. cold	Mixed temp.	Test 3 Press. hot	Press. cold	Mixed temp.	Av. mixed temp.	pass	fail
1	300	200	50,6	300	200	50,8	300	200	50,4	50,2	☐	☒
2	300	100	48,5 *	300	100	49,3 *	300	100	48,9 *	48,9	☐	☒
3	300	50	48,5 *	300	50	49,3 *	300	50	49,2 *	49,0	☐	☒
4	300	300	42,9	300	300	43,6	300	300	43,6	43,4	☒	☐
5	300	500	40,6	300	500	41,0	300	500	41,1	40,9	☒	☐
6	300	300	43,4	300	300	44,1	300	300	44,0	43,8	☒	☐

Hot water pressure changes

Change	Test 1 Press. hot	Press. cold	Mixed temp.	Test 2 Press. hot	Press. cold	Mixed temp.	Test 3 Press. hot	Press. cold	Mixed temp.	Av. mixed temp.	pass	fail
1	200	300	40,6	200	300	41,0	200	300	40,9	40,8	☒	☐
2	100	300	40,9	100	300	41,5	100	300	41,5	41,3	☒	☐
3	50	300	41,8	50	300	42,2	50	300	42,3	42,1	☒	☐
4	300	300	43,5	300	300	44,2	300	300	44,2	44,0	☒	☐
5	500	300	50,2	500	300	50,7	500	300	50,5	50,5	☐	☒
6	300	300	42,8	300	300	43,5	300	300	43,4	43,2	☒	☐

* Great fluctuation of the temperature, the average temperature is noted

Sample B art. 7.10 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	57,1	57,4	57,5
cold water temperature (°C)	15,1	14,8	15,1
mixed water temperature (°C)	43,6	43,3	43,2
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (l/min)	20,0	20,0	20,0

Cold water pressure changes

Change	Test 1 Press. hot	Press. cold	Mixed temp.	Test 2 Press. hot	Press. cold	Mixed temp.	Test 3 Press. hot	Press. cold	Mixed temp.	Av. mixed temp.	pass	fail
1	300	200	46,8	300	200	49,6	300	200	49,9	48,8	☐	☒
2	300	100	50,4	300	100	51,1	300	100	52,0	51,2	☐	☒
3	300	50	51,0	300	50	51,6	300	50	52,2	51,6	☐	☒
4	300	300	42,0	300	300	42,8	300	300	43,4	42,7	☒	☐
5	300	500	41,8	300	500	42,5	300	500	43,0	42,4	☒	☐
6	300	300	43,5	300	300	44,1	300	300	44,6	44,1	☒	☐

Hot water pressure changes

Change	Test 1 Press. hot	Press. cold	Mixed temp.	Test 2 Press. hot	Press. cold	Mixed temp.	Test 3 Press. hot	Press. cold	Mixed temp.	Av. mixed temp.	pass	fail
1	200	300	42,4	200	300	43,0	200	300	43,5	43,0	☒	☐
2	100	300	41,2	100	300	41,8	100	300	42,2	41,7	☒	☐
3	50	300	41,4	50	300	41,8	50	300	42,3	41,8	☒	☐
4	300	300	43,9	300	300	44,4	300	300	44,9	44,4	☒	☐
5	500	300	49,4	500	300	50,0	500	300	50,0	49,8	☐	☒
6	300	300	42,0	300	300	42,6	300	300	43,2	42,6	☒	☐

Sample C art. 7.10 HP-T44

Initial settings	Test 1	Test 2	Test 3
hot water temperature (°C)	57,1	57,0	57,2
cold water temperature (°C)	14,8	14,8	15,1
mixed water temperature (°C)	43,4	43,3	43,5
hot water supply pressure (kPa)	300	300	300
cold water supply pressure (kPa)	300	300	300
flow rate (l/min)	19,8	19,9	19,9

Cold water pressure changes

Change	Test 1 Press. hot	Press. cold	Mixed temp.	Test 2 Press. hot	Press. cold	Mixed temp.	Test 3 Press. hot	Press. cold	Mixed temp.	Av. mixed temp.	pass	fail
1	300	200	49,5	300	200	47,4	300	200	46,5	47,8	☐	☒
2	300	100	48,3	300	100	46,9	300	100	47,6	47,6	☐	☒
3	300	50	48,3	300	50	47,4	300	50	47,8	47,8	☐	☒
4	300	300	44,6	300	300	43,4	300	300	43,3	43,8	☒	☐
5	300	500	45,0	300	500	44,0	300	500	43,8	44,3	☒	☐
6	300	300	44,9	300	300	43,7	300	300	43,8	44,1	☒	☐

Hot water pressure changes

Change	Test 1 Press. hot	Press. cold	Mixed temp.	Test 2 Press. hot	Press. cold	Mixed temp.	Test 3 Press. hot	Press. cold	Mixed temp.	Av. mixed temp.	pass	fail
1	200	300	45,0	200	300	44,0	200	300	44,3	44,4	☒	☐
2	100	300	44,8	100	300	44,1	100	300	43,6	44,2	☒	☐
3	50	300	43,9	50	300	42,9	50	300	42,8	43,2	☒	☐
4	300	300	44,9	300	300	43,9	300	300	44,1	44,3	☒	☐
5	500	300	48,3	500	300	47,7	500	300	47,7	47,9	☐	☒
6	300	300	44,5	300	300	43,4	300	300	43,3	43,7	☒	☐

test result ☐ pass ☒ fail ☐ NPD

i. Temperature stability with changing water supply temperature (article 7.11)

Sample A art. 7.11 HP-T44

Initial settings

hot water supply pressure (kPa)	300
cold water supply pressure (kPa)	300
mixed flow rate (l/min)	20,0

	hot temp.	cold temp.	Mixed temp.
initial	57,3 °C	15,2 °C	43,9 °C
1st change	56,9 °C	7,4 °C	43,5 °C
2nd change	57,1 °C	20,7 °C	44,5 °C
3rd change	57,4 °C	15,5 °C	43,8 °C
initial	57,3 °C	15,5 °C	43,8 °C
1st change	52,5 °C	15,4 °C	44,2 °C
2nd change	64,7 °C	15,4 °C	43,9 °C
3rd change	57,4 °C	15,5 °C	43,7 °C

Sample B art. 7.11 HP-T44

Initial settings

hot water supply pressure (kPa)	300
cold water supply pressure (kPa)	300
mixed flow rate (l/min)	19,9

	Hot temp.	Cold temp.	Mixed temp.
initial	57,1 °C	15,0 °C	43,0 °C
1st change	56,4 °C	7,2 °C	42,9 °C
2nd change	57,7 °C	20,4 °C	43,4 °C
3rd change	57,3 °C	14,7 °C	43,3 °C
initial	57,1 °C	14,8 °C	43,3 °C
1st change	52,7 °C	15,1 °C	43,2 °C
2nd change	64,5 °C	15,0 °C	43,9 °C
3rd change	57,1 °C	15,0 °C	43,0 °C

Sample C art. 7.11 HP-T44

Initial settings

hot water supply pressure (kPa)	300
cold water supply pressure (kPa)	300
mixed flow rate (l/min)	19,8

	hot temp.	cold temp.	Mixed temp.
initial	57,1 °C	14,8 °C	43,3 °C
1st change	56,6 °C	7,5 °C	42,9 °C
2nd change	57,8 °C	20,2 °C	42,4 °C
3rd change	57,4 °C	14,7 °C	42,2 °C
initial	57,2 °C	14,7 °C	42,3 °C
1st change	52,5 °C	15,0 °C	43,4 °C
2nd change	64,4 °C	15,0 °C	41,8 °C
3rd change	56,9 °C	15,0 °C	42,1 °C

test result ☒ pass ☐ fail ☐ NPD

j. Temperature stability at reduced flow rate (article 7.12)

Sample A art. 7.12 HP-T44

Initial settings

hot water temperature (°C)	57,1
cold water temperature (°C)	15,2

	Test 1 hot press.	cold press.	mixed flow rate	mixed temp.	Test 2 hot press.	cold press.	mixed flow rate	mixed temp.	Test 3 hot press.	cold press.	mixed flow rate	mixed temp.	Av. mixed temp.
initial	300	300	20,2	43,4	300	300	20,0	43,5	300	300	20,1	43,4	43,4
cold press. red.	300	250	19,5	46,6	300	250	19,3	46,6	300	250	19,3	46,7	46,6
flow red.	300	250	10,1	47,4	300	250	10,0	47,4	300	250	10,0	47,4	47,5
restoration	300	300	20,0	43,4	300	300	20,0	43,2	300	300	20,0	43,3	43,3
initial	300	300	20,1	43,4	300	300	20,0	43,3	300	300	20,0	43,3	43,3
hot press. red.	250	300	18,3	42,5	250	300	18,2	42,5	250	300	18,3	42,5	42,5
flow red.	250	300	10,0	42,2	250	300	10,0	42,2	250	300	10,0	42,4	42,3
restoration	300	300	20,0	43,7	300	300	20,0	43,7	300	300	20,0	43,8	43,7

Sample B art. 7.12 HP-T44

Initial settings

hot water temperature (°C)	56,6
cold water temperature (°C)	15,0

	Test 1 hot press.	cold press.	mixed flow rate	mixed temp.	Test 2 hot press.	cold press.	mixed flow rate	mixed temp.	Test 3 hot press.	cold press.	mixed flow rate	mixed temp.	Av. mixed temp.
initial	300	300	19,8	43,3	300	300	19,8	43,0	300	300	19,9	43,2	43,2
cold press. red.	300	250	19,2	46,7	300	250	19,1	46,9	300	250	19,2	46,7	46,8
flow red.	300	250	10,2	48,4	300	250	10,0	49,4	300	250	10,0	50,0	49,6
restoration	300	300	20,0	42,9	300	300	19,9	42,8	300	300	19,9	43,0	42,9
initial	300	300	20,0	43,0	300	300	19,9	42,8	300	300	20,0	43,0	42,9
hot press. red.	250	300	18,2	42,7	250	300	18,1	42,8	250	300	18,2	42,4	42,6
flow red.	250	300	10,1	43,8	250	300	10,1	43,9	250	300	10,0	44,2	44,0
restoration	300	300	20,0	43,6	300	300	20,0	43,3	300	300	20,0	43,6	43,5

Sample C art. 7.12 HP-S

Initial settings

hot water temperature (°C)	56,9
cold water temperature (°C)	14,9

	Test 1 hot press.	cold press.	mixed flow rate	mixed temp.	Test 2 hot press.	cold press.	mixed flow rate	mixed temp.	Test 3 hot press.	cold press.	mixed flow rate	mixed temp.	Av. mixed temp.
initial	300	300	19,8	43,5	300	300	20,0	43,4	300	300	20,0	43,4	43,5
cold press. red.	300	250	19,2	46,4	300	250	19,4	46,4	300	250	19,3	46,5	46,5
flow red.	300	250	10,0	47,6	300	250	10,0	48,5	300	250	10,0	48,0	47,4
restoration	300	300	19,9	43,3	300	300	19,9	43,5	300	300	20,0	43,3	43,4
initial	300	300	19,9	43,3	300	300	19,9	43,4	300	300	20,0	43,8	43,5
hot press. red.	250	300	18,2	42,8	250	300	18,1	43,6	250	300	18,2	43,5	43,4
flow red.	250	300	10,1	42,9	250	300	10,1	44,6	250	300	10,0	43,9	43,8
restoration	300	300	19,9	43,9	300	300	20,0	44,0	300	300	20,0	43,8	43,9

test result ☐ pass ☒ fail ☐ NPD

8 *Marking (article 9)*

The thermostatic mixing valves have been provided with the following marks:

Requirement				Marking applied
Manufacturers name or identification		☐ Yes	☐ No	
• location				
• special tool needed to remove detachable part of the valve		☐ Yes	☐ No	☐ N/A
unique model reference		☐ Yes	☐ No	
Remark				

test result ☐ pass ☐ fail ☒ NPD ☐ N/A

9 *Installation and operating instructions (article 10)*

The provided installation, operating and maintenance instructions include:

- information on the designation of the thermostatic mixing valve concerned ☐ Yes ☐ No
- information on the commissioning and routine in-service tests to be performed ☐ Yes ☐ No
- information on the frequency of in-service tests and service work ☐ Yes ☐ No
- information on the need for any anti-backsiphonage devices (e.g. check valves) required to be installed with the mixing valve together with the specification of such devices ☐ Yes ☐ No
- the need for the inclusion of any isolating valves etc. to enable on site tests to be made ☐ Yes ☐ No
- details of suitable outlet fittings (e.g. draw-off taps etc.) ☐ Yes ☐ No

test result ☐ pass ☐ fail ☒ NPD ☐ N/A

10 *Remarks*

none

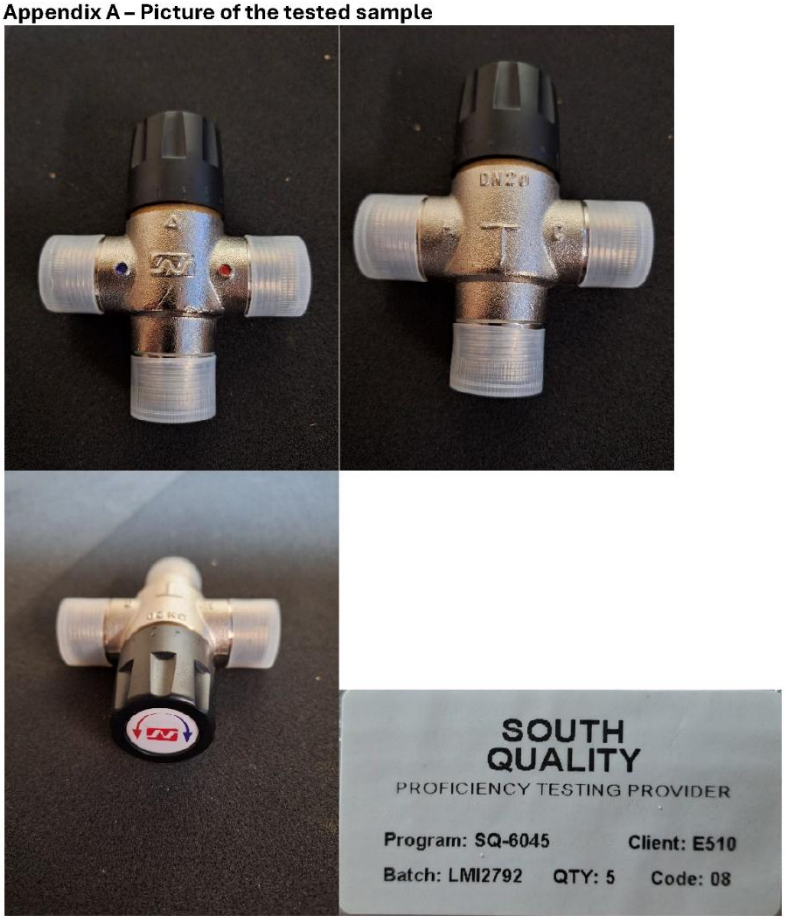
11 *Equipment used*

The equipment as has been used during the various tests has been included in the accredited calibration system.

12 *Summary of failures*

Article of NHS D08	Subject	Article of test report	Page of test report
Art 7.9	Thermal shut-off	7.g	10
Art 7.10	Temperature stability with changing water supply pressure	7.h	16
Art 7.12	Temperature stability at reduced flow	7.j	19

Appendix A – Picture of the tested sample



----- END OF REPORT -----