SANITARY TAPWARE

Technical document
077-07

ECAU rating for shower outlets for sanitary tapware
CSTB (Centre Scientifique et Technique du Bâtiment), a public establishment supporting innovation in construction, has five key activities—research and expertise, assessment, certification, tests, and dissemination of knowledge—organised to meet the challenges of the ecological and energy transition in the construction sector. Their fields of expertise include construction materials, buildings and their integration into districts and towns.

With over 900 employees, its subsidiaries and networks of national, European and international partners, the CSTB group works for all the stakeholders in the construction sector to advance building quality and safety.
## MODIFICATION HISTORY

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<th>Revision no.</th>
<th>Application date</th>
<th>Modifications</th>
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</table>
| 00           | 01/06/2017       | Update to the document layout and reference.  
Content modifications:  
- Some technical changes |
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Content modifications:  
- establishment of ECAU rating |
| 02           | 01/10/2020       | Reference to the regulation for use of marks (DT077-00)  
- Addition of the testing method at the 2.6.10 Chapter  
“Mechanical characteristics for shower bars” |
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1 Normative support for ECAU rating

1.1 Purpose

The purpose of this chapter is to list the articles of Standard NF EN 1112 - version 2008 that are taken into account for the ECAU rating in accordance with the regulation for use DT077-00.

1.2 List of the tests involved

The table below lists the articles of the Standard NF EN 1112.

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<th>Articles</th>
<th>Title of articles</th>
</tr>
</thead>
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<td>Marking</td>
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<td>Materials</td>
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<td>Chemical and hygienic requirements</td>
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<td>State of visible surfaces and coating quality (neutral salt spray test)</td>
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<td>Leaktightness characteristics</td>
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<td>13</td>
<td>Maintenance</td>
</tr>
<tr>
<td>14</td>
<td>Rotating fitting</td>
</tr>
</tbody>
</table>
2 ECAU rating

2.1 Foreword

The ECAU rating was created to meet the expectations of market players who require performances that are superior or complementary to that indicated in Standard NF EN 1112.

For handsprays, the following are required:

- Specific dimensions for using lateral showers for sanitary tapware;
- Hydraulic performance levels according to user needs;
- Creation of the 3 acoustic classes to clarify this performance;
- Increase in mechanical characteristics requirements by a change in the temperature of the thermal shock test (hot water at (93 ± 2) °C instead of 70 °C) in the European standard to optimise shower lifespan;
- Improved maintenance with an anti-limescale system for shower jets.
- Specific mechanical performance for shower bars

It should be noted, however, that the use of the ECAU rating is voluntary and supplementary to the evaluation of a product that is already certified under Standard NF EN 1112.

2.2 Purpose

The purpose of this chapter is to establish the dimensional, hydraulic, mechanical, acoustic and maintenance performance levels to be met by shower outlets for sanitary tapware to qualify for the ECAU rating.

2.3 Field of application

This chapter applies to:

- shower outlets for sanitary tapware subject to Standard NF EN 1112;
- shower bars for sanitary tapware.

2.4 References to standards and additional specifications

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NF EN 1112: 2008</td>
<td>Sanitary tapware - Shower outlets for sanitary tapware for water supply systems types 1 and 2 - General technical specifications</td>
</tr>
<tr>
<td>NF EN ISO 3822-1: 1999</td>
<td>Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 1: Method of measurement</td>
</tr>
<tr>
<td>NF EN ISO 3822-2: 1995</td>
<td>Acoustics - Laboratory tests on noise emission from tapware and hydraulic equipment used in water supply installations - Part 2: Guidelines for the installation and operation of draw-off taps and tapware.</td>
</tr>
<tr>
<td>DT077-00</td>
<td>Regulations for use of marks</td>
</tr>
</tbody>
</table>

2.5 ECAU rating principle

The ECAU rating is based on four characteristics:

- hydraulic or flow characteristic, symbolised by the letter “E”;
- comfort characteristic symbolised by the letter “C”;
- acoustic characteristic symbolised by the letter “A”;
- mechanical or wear characteristic, symbolised by the letter “U”.
The ECAU rating is characterised by the association of the letters ECAU, each of which is provided with a class: 1, 2, 3, etc. according to a level of performance or quality.

It can only be assigned to shower outlets for sanitary tapware:
- pursuant to Standard NF EN 1112. The test procedures are defined in Article 1 of this document.
- having passed the performance tests for the ECAU rating. The test procedures are provided in Article 2.6 below.

2.5.1 Meaning of E

The flow characteristic taken into account is the use flow ‘q’ of the tap as it is equipped (standard accessories: regulators, fittings, etc.).

There are 6 classes for this characteristic. See Article 2.7.1.1.

2.5.2 Meaning of C

The comfort characteristics taken into account are hydraulic performance, endurance and thermal shock resistance.

There are 3 classes for this characteristic. See Article 2.7.2.1.

<table>
<thead>
<tr>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
</tr>
<tr>
<td>– Dimensions (only for lateral showers)</td>
</tr>
<tr>
<td>– Maintenance (handspray jets (soft silicone part or other to facilitate jet cleaning))</td>
</tr>
<tr>
<td>Class 2</td>
</tr>
<tr>
<td>– Must be C1</td>
</tr>
<tr>
<td>– Water saving flow rate</td>
</tr>
<tr>
<td>Class 3</td>
</tr>
<tr>
<td>– Shower effectiveness test</td>
</tr>
</tbody>
</table>

2.5.3 Meaning of A

The acoustic characteristic taken into account is the sound pressure level, \( L_{ap} \).

There are 3 classes for this characteristic. See Article 2.7.3.1.

2.5.4 Meaning of U

The wear characteristic taken into account is the mechanical characteristic and, more precisely, thermal shock resistance.

There is 1 class for this characteristic. See Article 2.7.4.1.

An application for an ECAU rating implies a class 3 application for endurance tests (U3).

2.6 Performance level for the ECAU rating

2.6.1 Marking

No requirements in addition to those under the NF EN 1112 Standard.

2.6.2 Materials

No requirements in addition to those under the NF EN 1112 Standard.

2.6.3 Dimensional characteristics

The type “Side shower head” with a male connection is added to the Standard NF EN 1112 (Article 8.2 Connection dimensions). The dimensions of Figures 7b and 7c apply.

2.6.4 Leaktightness characteristics

No requirements in addition to those under the NF EN 1112 Standard.
2.6.5 Mechanical characteristics

2.6.5.1 Mechanical strength
No requirements in addition to those under the NF EN 1112 Standard.

2.6.5.2 Thermal shock resistance tests
The test under the standard is modified as follows:

2.6.5.2.1 Operating procedure
The product is subjected to water circulation, at a flow rate of 0.08 to 0.12 L/s without exceeding a supply pressure of 3 bar.
- Mount the product on a test device of the type for which it is normally intended.
- Subject it to 5 cycles of water circulation, with each cycle including:
  - (15 ± 1) min water flow at (93 ± 2) °C, with flow upstream of the jet regulator limited to a maximum of 0.15 L/s;
  - (10 ± 1) min water flow at (20 ± 5) °C, with flow upstream of the jet regulator limited to a maximum of 0.15 L/s

2.6.5.2.2 Requirements
No leaks should be observed during the last three test cycles. At the end of the test, there must be no visible permanent deformation of the product and no peeling or flaking of the coating.

2.6.6 Hydraulic characteristics

2.6.6.1 Flow rate in the “soft spray” position
Verification of the flow rate value obtained with class E, see Article 2.7.1.1

2.6.6.2 “Water saving” flow rate
To be examined for the ECAU rating, the “water saving” characteristic must meet the following requirements:
Handsprays used in sanitary tapware are subjected to a flow rate when they are used as a shower outlet accessory.
To ensure the flow rate, it seemed appropriate to use a test described in Article 11 of Standard NF EN 1112 and measure the flow rate value.

2.6.6.2.1 Test principle
The purpose is to determine, for the tested handsprays, the flow rate value in the “soft spray” position for a reference pressure of 3 bar, which is also constant on the cold water supply.
The measurement is performed on a handspray.

2.6.6.2.2 Equipment
See Article 11.2.2 of Standard NF EN 1112.

2.6.6.2.3 Operating procedure
- Supply the product with a dynamic pressure of 0.3 (+ 0.02/0) MPa or 3 (+ 0.2/0) bar.
- Measure and record the flow rate values.
2.6.2.4 Required characteristics

*Flow rate according to the product*

<table>
<thead>
<tr>
<th>Type of product</th>
<th>Flow requirements in L/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handspray</td>
<td>6 L/min ≤ q &lt; 9 L/min</td>
</tr>
<tr>
<td>Overhead shower</td>
<td>9 L/min ≤ q &lt; 12 L/min</td>
</tr>
</tbody>
</table>

2.6.7 Acoustic characteristics

Handsprays with Lap > 30 cannot be admitted for the ECAU rating.
Verification of the acoustic value obtained with class A; see article 2.7.3.1.

2.6.8 Maintenance

Shower outlets for sanitary tapware are equipped with an anti-limescale system for handspray jets (soft silicone part or other to facilitate jet cleaning).

2.6.9 Rotating fitting

No requirements in addition to those under the NF EN 1112 Standard.

2.6.10 Mechanical characteristic for shower bars

To verify the performance of the shower bar slider, it was considered necessary to add the following tests:
- Slip resistance of the shower bar slider;
- Endurance in translational move of shower bar slider;
- Endurance in rotational move of the handspray holder on shower bar slider or independent shower holder;
- Slip resistance for telescopic shower bars

2.6.10.1 Slip resistance of the shower bar slider

2.6.10.1.1 Test principle

The test consists of verifying the performance of the slider regarding slip resistance under force.

2.6.10.1.2 Operating procedure

- Assemble the shower bar with its slider on the test bench;
- Place the slider at the centre of the bar in the “locked” position as follows:
  - Press the cursor button if push-button system to position the cursor;
  - Apply slider tightening if screw system with a torque of 0.75 ± 0.25 Nm;
- Locate the slider position on the upper part;
- Apply a vertical downward force of (30 ± 2) N on the slider during 300 ± 5 seconds;
- Check that the cursor has not changed position by sliding on the bar;

Repeat this test by moistening the bar with a sponge;

2.6.10.1.3 Required characteristics

No sliding should be noted during the application of force during the test whether the bar is wet or dry.
2.6.10.2 Endurance in translational move of the handspray holder on the shower bar slider

2.6.10.2.1 Test principle
The test consists of verifying the performance of the slider regarding the endurance in translational move.

2.6.10.2.2 Operating procedure
- Assemble the shower bar with its slider on the test bench;
- Place the slider in the high position on the shower bar and in the "locked" position;
- Apply a mass of 0.6 (-0.1 / 0) Kg on the slider to simulate a hand shower;
- Connect the cursor to an automated system to perform the translational movement;
- Unlock the cursor lock using an automated system as follows;
  - Press the cursor button if push-button system with a force of 0.5 ± 0.25 N
  - Loosen the slider if a screw system with a torque of 0.75 ± 0.25 Nm
- Using the automated system, operate the cursor in translation downwards with a speed of (10 ± 2) cm/s over (500 ± 25) mm,
- Wait 2 to 5 seconds,
- Block the cursor lock using an automated system as follows;
  - Release the pressure on the cursor button if a push-button system with a force of 0.5 ± 0.25 N;
  - Apply slider tightening if screw system with a torque of 0.75 ± 0.25 Nm;
- Wait 2 to 5 seconds,
- Unlock the cursor lock using an automated system as follows;
  - Press the cursor button if push-button system with a force of 0.5 ± 0.25 N;
  - Loosen the slider if a screw system with a torque of 0.75 ± 0.25 Nm;
- Using the automated system, operate the cursor in upward translation with a speed of (10 ± 2) cm/s over (500 ± 25) mm;
- Wait 2 to 5 seconds;
- Block the cursor lock using an automated system as follows;
  - Release the pressure on the cursor button if a push-button system with a force of 0.5 ± 0.25 N;
  - Apply slider tightening if screw system with a torque of 0.75 ± 0.25 Nm;
- Repeat this operating mode for 5,000 cycles (1 cycle corresponds to raising and lowering with locking and unlocking of the slider in the up and down position on the shower bar);

2.6.10.2.3 Required characteristics
At the end of the test, the bar and the slider must not show any visible deterioration that could affect the operation of the bar / slider assembly.
At the end of the endurance test, check the compliance at the slip resistance test in accordance with article 2.6.10.1 of this document.

2.6.10.3 Endurance in rotational move of the handspray holder on shower bar slider or independent shower holder;

2.6.10.3.1 Test principle
The test consists of verifying the performance of the slider of the shower bar or of the independent shower support in terms of rotational endurance.

2.6.10.3.2 Operating procedure
- Mount the slider of the shower bar or the independent shower support on the test bench making sure that the position of the shower support is at (45 ± 5)° to the left with respect to the vertical axis of it;
- Connect the slider of the shower bar or the independent shower support to an automated system to realize the rotational movement with a speed of (90 ± 5)°/s and a torque of 0.1 to 0.6 (± 0.1) Nm;
- Use the automated system to operate the slider of the shower bar or the independent shower support in rotation to the right at an angle of (90 ± 5)°;
- Wait 2 to 5 seconds;
- Using the automated system, operate the slider of the shower bar or the independent shower support in rotation to the left with an angle of (90 ± 5)°;
- Wait 2 to 5 seconds;
- Repeat this operating mode for 1000 cycles (1 cycle corresponds to a clockwise rotation of (90 ± 5)° and a counterclockwise rotation of (90 ± 5)° with a time delay at the end of each cursor rotation the shower bar or the independent shower support);

2.6.10.3.3 Required characteristics
Throughout the duration of the test, the slider of the shower bar or of the independent shower support must not show any visible deterioration that could affect its operation and must not exceed the maximum torque value of (0.6 ± 0.1) Nm.

2.6.10.4 Slip resistance for telescopic shower bars

2.6.10.4.1 Test principle
The test consists of verifying the performance of the connection between the fixed bar and the telescopic bar in relation to slipping and leaktightness.

2.6.10.4.2 Operating procedure
- Assemble the shower bar on the test bench;
- Mark the position of the telescopic bar above the connector connecting the two bars;
- Install a flow limitation of (8 ± 1) L/min on the outlet of the telescopic bar;
- Supply cold water (T ≤ 30 °C) to the fixed bar inlet with a dynamic pressure of (5 ± 0.5) bar for (60 ± 5) s.
- Check that the telescopic bar has not changed position when sliding upwards.

2.6.10.4.3 Required characteristics
Throughout the duration of the test, the connection must not show any visible signs of deterioration or leakage that may affect the operation of the bar assembly. And no upwards slipping must be observed for the telescopic bar.
### 2.6.11 Order of tests

<table>
<thead>
<tr>
<th>Sample Sequence</th>
<th>Order</th>
<th>Tests</th>
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<td>Sample 2 Materials</td>
<td>§7.2B Materials (air thermal shock)</td>
<td></td>
</tr>
<tr>
<td>Sample 3 Thermal shocks</td>
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<td>§6 Marking</td>
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<td></td>
<td>2.</td>
<td>§10.4 Thermal shock reaction</td>
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<tr>
<td></td>
<td>3.</td>
<td>§9 Leaktightness</td>
</tr>
<tr>
<td>Sample 4 Thermal shocks</td>
<td>1.</td>
<td>§6 Marking</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>§2.6.5.2 Thermal shock reaction</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>§9 Leaktightness</td>
</tr>
<tr>
<td>Sample 5 for C1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample 5 for C2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample 5 Hydraulic</td>
<td>1.</td>
<td>§6 Marking</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>§8 Dimensions</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>§2.6.3 Dimensions (lateral showers)</td>
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<tr>
<td></td>
<td>4.</td>
<td>§11 Hydraulic characteristic</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>§2.6.6.1 Class E for “soft spray” flow rate</td>
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<td></td>
<td>6.</td>
<td>§2.6.6.2 “Water saving” flow rate</td>
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<tr>
<td></td>
<td>7.</td>
<td>§9 Leaktightness</td>
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<tr>
<td></td>
<td>8.</td>
<td>§10.2 Mechanical strength</td>
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<td>Sample 6-7-8 Acoustic</td>
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<td>§6 Marking</td>
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<td></td>
<td>2.</td>
<td>§12 Acoustics</td>
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<td></td>
<td>3.</td>
<td>§2.6.7 Class A for acoustics</td>
</tr>
<tr>
<td>Sample 9 Rotating fitting</td>
<td>1.</td>
<td>§6 Marking</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>§13 Maintenance</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>§14 Rotating fitting</td>
</tr>
<tr>
<td>Sample 10 Slip resistance and Endurance of the shower bar slider</td>
<td>1.</td>
<td>§2.6.10.1 Slip resistance</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>§2.6.10.3 Endurance</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>§2.6.10.1 Slip resistance</td>
</tr>
<tr>
<td>Sample 11 Rotation of the shower bar slider</td>
<td>1.</td>
<td>§2.6.10.2 Rotation</td>
</tr>
<tr>
<td>Sample 10 Slip resistance and Endurance</td>
<td>1.</td>
<td>§2.6.10.3 Slip resistance for telescopic shower bars</td>
</tr>
</tbody>
</table>
2.7 ECAU rating for shower outlets for sanitary tapware

The essential principle of the ECAU rating is that the different characteristics are independent of each other. The level of each characteristic is to be selected as needed. The highest level may apply for one characteristic, while the lowest level may apply for another.

2.7.1 Hydraulic or flow characteristic

2.7.1.1 Classification

Depending on their performance level, tapware can be classified as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>Flow rate value</th>
</tr>
</thead>
<tbody>
<tr>
<td>E01</td>
<td>6 L/min ≤ q &lt; 9 L/min</td>
</tr>
<tr>
<td>E0</td>
<td>9 L/min ≤ q &lt; 12 L/min</td>
</tr>
<tr>
<td>E1</td>
<td>12 L/min ≤ q &lt; 15 L/min</td>
</tr>
<tr>
<td>E2</td>
<td>15 L/min ≤ q &lt; 20 L/min</td>
</tr>
<tr>
<td>E3</td>
<td>20 L/min ≤ q &lt; 25 L/min</td>
</tr>
<tr>
<td>E4</td>
<td>25 L/min ≤ q &lt; 30 L/min</td>
</tr>
</tbody>
</table>

2.7.1.2 Selection criteria

Flow rate class selection will be based on:
- the supplied device;
- the building comfort level;
- the type of room to be equipped.

2.7.2 Comfort characteristics

2.7.2.1 Classification

Depending on their performance level, shower outlets for sanitary tapware can be classified as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>The shower outlet for sanitary tapware must comply with the requirements of the following articles:</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>2.6.3 Dimensional characteristics; 2.6.10 Mechanical characteristic for shower bars</td>
</tr>
<tr>
<td>C2</td>
<td>2.6.6.2 “Water saving” flow rate</td>
</tr>
<tr>
<td>C3</td>
<td>Shower effectiveness test</td>
</tr>
</tbody>
</table>

2.7.2.2 Selection criteria

The comfort class selection will mainly depend on the characteristics and use of the building.
2.7.3 Acoustic characteristic

2.7.3.1 Classification

Depending on their performance level, shower outlets for sanitary tapware can be classified as follows:

<table>
<thead>
<tr>
<th>Acoustic group</th>
<th>Class</th>
<th>Lap</th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td>A1</td>
<td>20 dB (A) &lt; Lap  ≤ 30 dB (A)</td>
</tr>
<tr>
<td>I</td>
<td>A2</td>
<td>10 dB (A) &lt; Lap  ≤ 20 dB (A)</td>
</tr>
<tr>
<td>I</td>
<td>A3</td>
<td>Lap ≤ 10 dB (A)</td>
</tr>
</tbody>
</table>

2.7.3.2 Selection criteria

The acoustic class selection will mainly depend on the characteristics and use of the building.

2.7.4 Mechanical or wear resistance characteristic

2.7.4.1 Classification

Depending on the actual level of wear resistance of their various components, shower outlets for sanitary tapware can be classified as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>Number of cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>U3</td>
<td>Thermal shock resistance</td>
</tr>
<tr>
<td></td>
<td>5 cycles</td>
</tr>
</tbody>
</table>

2.7.4.2 Selection criteria

U3: intensive use and use in harsh conditions.

2.8 Example of ECAU rating

A handspray for sanitary tapware with a flow rate during use of 8 L/min that passes comfort level 2 tests, with an L_{A_p} of 10 dB (A), and that passes the thermal shock resistance test shall be classified as:

\[ E_{01} C_2 A_3 U_3 \]

An overhead shower for sanitary tapware with a flow rate during use of 14 L/min that passes comfort level 1 tests, with an L_{A_p} of 28 dB (A), and that passes the thermal shock resistance test shall be classified as:

\[ E_{1} C_1 A_1 U_3 \]
2.9 Rating presentation

2.9.1 Specific information for the catalogue or other commercial media

See Chapter 6.1 of the regulations for use of DT077-00.

The specific information on the methods for rating shower taps are as follows:

<table>
<thead>
<tr>
<th>Flow</th>
<th>E</th>
<th>q L/min measured under 3 bar</th>
<th>E01</th>
<th>E0</th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
<th>E4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 L/min ≤ q &lt; 9 L/min</td>
<td>9 L/min ≤ q &lt; 12 L/min</td>
<td>12 L/min ≤ q &lt; 15 L/min</td>
<td>15 L/min ≤ q &lt; 20 L/min</td>
<td>20 L/min ≤ q &lt; 25 L/min</td>
<td>25 L/min ≤ q &lt; 30 L/min</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comfort</th>
<th>C1</th>
<th>Dimensions, maintenance, performance of shower bar sliders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C2</td>
<td>Water saving characteristics</td>
</tr>
<tr>
<td></td>
<td>C3</td>
<td>Examined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acoustics</th>
<th>A</th>
<th>Lap dB (A)</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>20 dB (A) &lt; Lap ≤ 30 dB (A)</td>
<td>15 dB (A) &lt; Lap ≤ 20 dB (A)</td>
<td>Lap ≤ 15 dB (A)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wear</th>
<th>U</th>
<th>Number of cycles</th>
<th>U3</th>
<th>Thermal shock resistance</th>
<th>5 cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.9.2 Product information

See Chapter 6.2 of the regulations for use of DT077-00.
3 ECAU rating application

The rating application must be issued by the applicant/holder in one copy (1 original on the applicant's letterhead paper in French or English) according to the cases and models indicated below. All the documents are to be remitted to CSTB.

In the event that the product comes from a manufacturing unit located outside the European Economic Area, the applicant shall designate a representative within the European Economic Area who co-signs the application.

Note: Electronic versions of template letters and sheets may be obtained from CSTB.

The applicant produces a file that contains the elements described in the following table depending on the type of application.

### Summary Applications Table

<table>
<thead>
<tr>
<th>Type of application</th>
<th>Initial application</th>
<th>Complementary application</th>
<th>Admission following a penalty of withdrawal</th>
<th>Suspension application</th>
<th>Renunciation application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements</td>
<td>Standard letter 1A or 1B (for a representative)</td>
<td>Standard letter 2A or 2B (for a representative)</td>
<td>Standard sheet 7 specific items</td>
<td>Standard letter 5A or 5B (for a representative)</td>
<td>Standard letter 4A or 4B (for a representative)</td>
</tr>
<tr>
<td>Application and commitment letter</td>
<td>YES</td>
<td>YES</td>
<td>Instructions or extract from the catalogue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales literature</td>
<td>YES</td>
<td>If applicable</td>
<td>YES</td>
<td>Instructions or extract from the catalogue</td>
<td></td>
</tr>
</tbody>
</table>

3.1 For an initial rating application

The applicant shall prepare a dossier which includes:
- an application and commitment letter in accordance with standard letter 1A;
- if a representative, application and commitment letter as per standard letter 1B;

3.2 For a complementary rating application

The holder shall prepare a file containing the following:
- an application and commitment letter in accordance with standard letter 2A;
- if a representative, application and commitment letter as per standard letter 2B;

3.3 For a new rating application following a penalty of withdrawal of the ECAU rating

The holder shall prepare a file containing the following:
- specific items that all applicants must submit as part of a new admission application where the right of use has been withdrawn as a result of a sanction, using standard sheet 7.

3.4 For an application for the suspension of the ECAU rating

The holder shall prepare a file containing the following:
- a suspension letter as per standard letter 5A;
- if a representative, a suspension letter as per standard letter 5B.

3.5 For an application for renunciation of the ECAU rating

The holder shall prepare a file containing the following:
- a renunciation letter as per standard letter 6A;
- if a representative, a renunciation letter as per standard letter 6B.
ECAU or EChAU RATING APPLICATION FORM FOR APPLICANTS LOCATED IN THE EUROPEAN ECONOMIC AREA
(to be drawn up on the applicant's/holder's letterhead paper)

Centre Scientifique et Technique du Bâtiment
Direction Hydraulique et Equipements Sanitaires, (HES)
Division Robinetterie et Appareils Sanitaires (RAS)
For the attention of Mr. Laurent Rousseau
84, avenue Jean Jaurès
Champs sur Marne
F-77447 Marne La Vallée Cedex 2

Subject: ECAU and/or EChAU rating admission application
Attachment(s): a technical file.

Dear Sir, Madam,

I would like to request an ECAU and/or EChAU rating:

- for the following product/range of products: ............. (detailed list of the product/range of products or specify “as set out in the list included with this application”);
- produced at the following production unit: ............... (company name, address);
- and for the following trade name: .............. (trademark and/or specific trade reference, which may be on the list included with this application).

For this purpose, I declare that I have read and accept technical document 077 associated with this rating and undertake to comply with it and to inform my commercial network during the entire validity period of the ECAU and/or EChAU rating and in particular to comply without restrictions or reservations with the decisions made by CSTB.

Yours faithfully,

Date, signature and name in full of the applicant/holder’s legal representative
Dear Sir, Madam,

I would like to request an ECAU and/or EChAU rating:

- for the following product/range of products: ………… (detailed list of the product/range of products or specify “as set out in the list included with this application”);
- produced at the following production unit: ………… (company name, address);
- and for the following trade name: ………… (trademark and/or specific trade reference, which may be on the list included with this application).

For this purpose, I declare that I have read and accept technical document 077 associated with this rating and undertake to comply with it and to inform my commercial network during the entire validity period of the ECAU and/or EChAU rating. and in particular to comply without restrictions or reservations with the decisions made by CSTB.

Furthermore, I appoint the Company ………… (company name), ………… (company legal form), ………… (registered office) represented by Mr/Ms ………… (name of the legal representative) in that person’s capacity as …………(position) to represent me in the European Economic Area for all matters relative to ECAU and/or EChAU ratings.

I undertake to immediately notify CSTB of any new appointment of the representative designated above.

In this regard, I request that the expenses that are to be borne by me be invoiced directly to the representative. They will make the payments on my behalf and in my name as soon as the invoices are received, as agreed when accepting the role of representative.

Yours faithfully,

Date, signature and name in full of the applicant's legal representative

preceded by the handwritten wording “Approving representation”

Date, signature and name in full of the representative in the European Economic Area

preceded by the handwritten wording “Accepting representation”
STANDARD LETTER 2A
ECAU AND/OR EChAU RATINGS

COMPLEMENTARY APPLICATION FORM FOR ECAU AND/OR EChAU RATING FOR APPLICANTS LOCATED IN THE EUROPEAN ECONOMIC AREA
(to be drawn up on the applicant's/holder's letterhead paper)

Centre Scientifique et Technique du Bâtiment (CSTB)
Direction Hydraulique et Equipements Sanitaires, (HES)
Division Robinetterie et Appareils Sanitaires (RAS)
For the attention of Mr. Laurent Rousseau
84, avenue Jean Jaurès
Champs sur Marne
F-77447 Marne La Vallée Cedex 2

Subject: Complementary application for the ECAU and/or EChAU rating
Attachment(s): a technical file.

Dear Sir, Madam,

As holder of the ECAU and/or EChAU rating for the product(s) that we manufacture identified below:
- designation of the product(s): …………
- production unit: …………
- right of use granted on ………… (date) and bearing the following number: ………… (number of valid certificate)

I would like to request an ECAU and/or EChAU rating for the following product/product range that we manufacture:
- detailed list of the product/range of products: …………
- specific trade reference: …………

(This information may be included in a list attached to this application)

For an extension application, please provide the information below:

This product deviates from the certified product/range of products due to the following modifications: …………
<description of the modifications>.

The product/range of products for which I am seeking an extension will replace the certified product listed above:
- NO (1);
- YES (1).

I declare that the products/product range covered by this application are, with relation to the other characteristics, strictly in conformity with the products/product range already certified and manufactured under the same conditions.

For this purpose, I declare that I have read and accept technical document 077 associated with this rating and undertake to comply with it and to inform my commercial network during the entire validity period of the ECAU and/or EChAU rating, and in particular to comply without restrictions or reservations with the decisions made by CSTB.

Yours faithfully,

Date, signature and name in full of the applicant/holder's legal representative

(1) Delete as appropriate.
**STANDARD LETTER 2B**  
**ECAU AND/OR EChAU RATINGS**

**COMPLEMENTARY APPLICATION FORM FOR ECAU AND/OR EChAU RATING**  
**FOR APPLICANTS LOCATED OUTSIDE OF THE EUROPEAN ECONOMIC AREA**  
*(to be drawn up on the applicant’s/holder’s letterhead paper)*

Centre Scientifique et Technique du Bâtiment (CSTB)  
Direction Hydraulique et Equipements Sanitaires, (HES)  
Division Robinetterie et Appareils Sanitaires (RAS)  
For the attention of Mr. Laurent Rousseau  
84, avenue Jean Jaurès  
Champs sur Marne  
F-77447 Marne La Vallée Cedex 2

Subject:  **Complementary application for the ECAU and/or EChAU rating (with a representative)**  
Attachment(s): a technical file.

Dear Sir, Madam,

As holder of the ECAU and/or EChAU rating for the product(s) that we manufacture identified below:

- designation of the product(s): …………
- production unit: …………
- right of use granted on ………… (date) and bearing the following number: ………… *(number of valid certificate)*

I would like to request an ECAU and/or EChAU rating for the following product/product range that we manufacture:

- detailed list of the product/range of products: …………
- specific trade reference: …………

*(this information may be included in a list attached to this application)*

**For an extension application, please provide the information below:**

This product deviates from the certified product/range of products due to the following modifications: ………… *(<description of the modifications>)*

The product/range of products for which I am seeking an extension will replace the certified product listed above:

- NO (1);
- YES (1).

I declare that the products/product range covered by this application are, with relation to the other characteristics, strictly in conformity with the products/product range already certified and manufactured under the same conditions.

For this purpose, I declare that I have read and accept technical document 077 associated with this rating and undertake to comply with it and to inform my commercial network during the entire validity period of the ECAU and/or EChAU rating, and in particular to comply without restrictions or reservations with the decisions made by CSTB.

Furthermore, I appoint the Company ………… *(company name)*, ………… *(company legal form)*, ………… *(registered office)* represented by Mr/Ms ………… *(name of the legal representative)* in that person’s capacity as ………… *(position)* to represent me in the European Economic Area for all matters relative to ECAU and/or EChAU ratings.

I undertake to immediately notify CSTB of any new appointment of the representative designated above.

In this regard, I request that the expenses that are to be borne by me be invoiced directly to the representative. They will make the payments on my behalf and in my name as soon as the invoices are received, as agreed when accepting the role of representative.

Yours faithfully,

**Date, signature and name in full**  
**of the applicant’s legal representative**  
preceded by the handwritten wording “Approving representation”

**Date, signature and name in full**  
**of the representative in the European Economic Area**  
preceded by the handwritten wording “Accepting representation”

(1) Delete as appropriate.
APPLICATION FORM FOR RENUNCIATION OF THE ECAU AND/OR EChAU RATING
FOR APPLICANTS LOCATED IN THE EUROPEAN ECONOMIC AREA
(to be drawn up on the applicant's/holder's letterhead paper)

Centre Scientifique et Technique du Bâtiment (CSTB)
Direction Hydraulique et Equipements Sanitaires, (HES)
Division Robinetterie et Appareils Sanitaires (RAS)
For the attention of Mr. Laurent Rousseau
84, avenue Jean Jaurès
Champs sur Marne
F-77447 Marne La Vallée Cedex 2

Subject: Application for renunciation of the ECAU and/or EChAU rating

Dear Sir, Madam,

As holder of the ECAU and/or EChAU rating, I would like to renounce the ECAU and/or EChAU rating for the product(s) that we manufacture identified by the following references:

- designation of the product(s):
- manufacturing unit: ............ (company name, address): ............
- brand name: ............
- commercial reference: ............
- date of ECAU and/or EChAU rating admission: ............ or certificate No.: ............

for the following reasons:

- ............

for a maximum duration of 6 months, renewable once.

Manufacturing is due to cease on: ............

The inventories of these products with packaging marked ECAU or EChAU are the following: ............

The anticipated time it will take to deplete them is: ............

Yours faithfully,

Date, signature and name in full of the holder’s legal representative
APPLICATION FOR RENUNCIATION OF THE ECAU AND/OR EChAU RATING WITH A REPRESENTATIVE
FOR APPLICANTS LOCATED OUTSIDE OF THE EUROPEAN ECONOMIC AREA

For the attention of Mr Laurent Rousseau
Division Robinetterie et Appareils Sanitaires (Tapware and Sanitaryware Division)
Direction HES
CSTB
84 avenue Jean Jaurès
CHAMPS-SUR-MARNE
77447 MARNE LA VALLEE CEDEX 2 (France)

Subject: Application for renunciation of the ECAU and/or EChAU rating with a representative

Dear Sir, Madam,

As holder of the ECAU and/or EChAU rating, I would like to renounce the ECAU and/or EChAU rating for the product(s) that we manufacture identified by the following references:

- designation of the product(s):
- manufacturing unit: (company name, address):
- brand name:
- commercial reference:
- date of ECAU and/or EChAU rating admission or admission No.:

for the following reasons:

Manufacturing is due to cease on:

The inventories of these products with packaging marked ECAU or EChAU are the following:

The expected time for their depletion is:

Yours faithfully,

Date and signature of the holder’s legal representative

Date and signature of the representative in the European Economic Area
APPLICATION FORM FOR SUSPENSION OF THE ECAU AND/OR EChAU RATING
FOR APPLICANTS LOCATED IN THE EUROPEAN ECONOMIC AREA
(to be drawn up on the applicant's/holder's letterhead paper)

Centre Scientifique et Technique du Bâtiment (CSTB)
Direction Hydraulique et Equipements Sanitaires, (HES)
Division Robinetterie et Appareils Sanitaires (RAS)
For the attention of Mr. Laurent Rousseau
84, avenue Jean Jaurès
Champs sur Marne
F-77447 Marne La Vallée Cedex 2

Subject: Application for suspension of the ECAU and/or EChAU ratings

Dear Sir, Madam,

As holder of the ECAU and/or EChAU rating, I would like to request the suspension of the ECAU and/or EChAU rating for the product(s) that we manufacture identified by the following references:

- designation of the product(s):
- manufacturing unit: ............. (company name, address): .............
- brand name: .............
- commercial reference: .............
- date of ECAU and/or EChAU rating admission: ............. or certificate No.: .............

for the following reasons:

- .............

for a maximum duration of 6 months, renewable once.

Manufacturing is due to cease on: .............

The inventories of these products with packaging marked ECAU or EChAU are the following: .............

The anticipated time it will take to deplete them is: .............

Yours faithfully,

Date, signature and name in full of the holder’s legal representative
| Subject: | Application for suspension of the ECAU and/or EChAU ratings (with a representative) |
| Dear Sir, Madam, |
| As holder of the ECAU and/or EChAU rating, I would like to request the suspension of the ECAU and/or EChAU rating for the product(s) that we manufacture identified by the following references: |
| designation of the product(s): |
| manufacturing unit: ............ (company name, address): ............ |
| brand name: ............ |
| commercial reference: ............ |
| date of ECAU and/or EChAU rating admission: ............ or certificate No.: ............ |
| for the following reasons: |
| ............ |
| for a maximum duration of 6 months, renewable once. |
| Manufacturing is due to cease on: ............ |
| The inventories of these products with packaging marked ECAU or EChAU are the following: ............ |
| The anticipated time it will take to deplete them is: ............ |
| Yours faithfully, |
| Date, signature and name in full of the holder's legal representative | Date, signature and name in full of the representative in the European Economic Area |
STANDARD SHEET 7
ECAU AND/OR ECChAU RATINGS

SPECIFIC ITEMS ALL APPLICANTS (INDUSTRIALISTS, IMPORTERS, DISTRIBUTORS, ETC.) MUST PRODUCE AS PART OF A NEW ADMISSION APPLICATION WHEN THE RATING HAS BEEN WITHDRAWN AS A RESULT OF A SANCTION

In the event of an act of deceptive commercial practice under Articles L 121-2 to L121-5 of the Consumer Code (indication of a false rating of a certified product or a false label).

The applicant is responsible for determining and carrying out a course of action that will fully address and remedy the causes and consequences of their commitments as regards the correct usage of the certification mark.

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINIMUM PROOF TO BE SUPPLIED BY THE CSTB APPLICANT SHOWING THE ACTIONS THEY HAVE UNDERTAKEN TO FULLY ADDRESS AND REMEDY THE CAUSES AND CONSEQUENCES</th>
<th>VALIDITY OF THE PROOF RECEIVED</th>
</tr>
</thead>
</table>
| CURATIVE ACTIONS | • A list of those affected including full contact details (customers, prospects, technical controllers, etc.) who have received false attestations/false certificates; failing that, a list of those affected (customers, prospects, technical controllers, etc.) who have been contacted over the preceding 24 months. | ☐ List sent
☐ List not sent
Comments: ............. |
| | • List of customers, including full contact details, who have received products with inappropriately marked packaging information; otherwise, the list of customers of the past 24 months. | ☐ List sent
☐ List not sent
Comments: ............. |
| | • Letter written by the Applicant’s manager informing those affected of the invalidity of the false attestations/false certificates they have been sent. | ☐ CSTB will verify that this action has been carried out by contacting 5% of those affected or at least 5 customers and technical controllers.
☐ Letter of information duly implemented, corroborated by those affected
☐ Letter of information not implemented or partially implemented
Comments: ............. |
| | • Letter written by the Applicant’s manager informing the customers of products that are inappropriately marked or products bearing the certification mark(s). | CSTB will verify that this action has been carried out by contacting 5% of the customers or at least 5 customers
☐ Letter of information duly implemented, corroborated by those affected
☐ Letter of information not implemented or partially implemented
Comments: ............. |
| | • Action undertaken against the person or persons responsible for approving and issuing the false attestations/false certificates and/or delivering inappropriately marked products. | ☐ Action is relevant
☐ Action is not relevant
Comments: ............. |
4 Prices

The purpose of this chapter is to determine the amount due for services related to the ECAU and EChAU ratings and describe the terms of payment.

The ECAU and EChAU ratings include the following services:
- Development, examination of application and implementation of ECAU and/or EChAU ratings;
- Operation of ECAU and/or EChAU ratings;
- Testing.

4.1 Services related to the ECAU and EChAU ratings

<table>
<thead>
<tr>
<th>Nature of the service</th>
<th>Definition of the service</th>
<th>Paying for the services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management:</td>
<td>Participation in the implementation of the ratings, including preparation of the associated technical document.</td>
<td>Initial/complementary application: See § 4.2.1</td>
</tr>
<tr>
<td>Development and</td>
<td>Services including examination of application files, relations with applicants, laboratories and assessment of inspection results.</td>
<td></td>
</tr>
<tr>
<td>implementation of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ratings, examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of the rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rating operation</td>
<td>Services including management of rating files, relations with holders, laboratories, publication of ratings data on certificates, assessment of inspection results.</td>
<td>Monitoring: See § 4.2.2</td>
</tr>
<tr>
<td>Tests</td>
<td>Laboratories’ testing services</td>
<td>Initial/complementary application: See § 4.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitoring: See § 4.2.2</td>
</tr>
</tbody>
</table>

The laboratories’ price lists are provided upon request.
The applicant/holder supplies samples free of charge and makes them available at the laboratory’s address.
The costs related to the import duties and taxes are to be borne by the test applicant; the applicant shall pay all duties and taxes before sending the samples.
4.2 Paying for the services

4.2.1 Initial application/complementary application

Management and testing fees related to examination services are invoiced in the framework of an initial or complementary ECAU and/or EChAU rating application. They are payable in one instalment, at the time at which the application is filed, for official registration.

Such fees shall remain payable even if the ECAU and/or EChAU rating is not granted or extended or if the application is withdrawn during the examination.

4.2.2 Monitoring

Fees for annual services related to management and testing of ECAU and/or EChAU ratings are invoiced during the first quarter of each year and shall remain payable in the event of non-renewal, withdrawal, cancellation or suspension of the ECAU and/or EChAU rating during the year.

4.2.3 Non-payment of amounts due

The applicant or holder of the ECAU and/or EChAU rating must pay all fees in accordance with the established terms of payment. Any failure on their part is an obstacle to the fulfilment by CSTB of the responsibilities of inspection and corrective action that are incumbent upon it hereunder.

If a first official notice by registered letter with acknowledgement of receipt does not result in the payment of all amounts due within one month, any established penalties may be applied for all of the products accepted for such holder.

4.3 Prices

Prices are reviewed annually, in the form of a price list drawn up by CSTB. This revision is reported by CSTB.

If holders refuse to recognise the annual revision of fees, they shall be deemed to have voluntarily terminated the ratings for their products.