SANITARY TAPWARE Technical document 077-08

ECAU rating for Shower hoses for sanitary tapware and Extractable handspray hoses for sanitary tapware

Technical Document 077-08 Rev02

CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT

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MODIFICATION HISTORY

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00	01/06/2017	Update to the document layout and reference.	
		Content modifications:	
		Some technical changes	
01	02/04/2019 Cancels and replaces technical document 077-08 Rev 18		
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		Content modifications:	
		Establishment of ECAU rating	
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1 Normative support for ECAU rating

1.1 Purpose

The purpose of this chapter is to list the articles of Standards NF EN 1113 and NF EN 16146+A1 that will be 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 1113.

Articles	Title of articles	
5	Marking	
6	Materials	
6.1	Chemical and hygienic requirements	
6.2	Visible surfaces	
7	Dimensional characteristics	
8	Hydraulic characteristics	
9	Mechanical and leaktightness characteristics	
9.2	Tensile strength	
9.3	Bending strength	
9.4	Resistance to pressure at high temperature	
9.5	Leaktightness after tensile and bending strength tests	
9.6	Thermal shock resistance	
10	Rotating fitting	

The table below lists the articles of the Standard NF EN 16146+A1.

Articles	Title of articles	
5	Marking	
6	Materials	
6.1	Chemical and hygienic requirements	
6.2	Visible surfaces	
7	Dimensional characteristics	
8	Hydraulic characteristics	
9	Mechanical and leaktightness characteristics	
9.2	Tensile strength	
9.3	Bending strength	
9.4	Durability test	
9.5	Resistance to pressure at high temperature	
9.6	Thermal shock resistance	
10	Rotating fitting	



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 Standards NF EN 1113 and NF EN 16146+A1.

For shower hoses and extractable handspray hoses for sanitary tapware, the following are required:

- Connection nut materials;
- Hydraulic performance levels according to user needs;
- Mechanical and endurance performance of stripwound or plastic hoses;

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 Standards NF EN 1113 and NF EN 16146+A1.

2.2 Purpose

The purpose of this chapter is to establish the material, hydraulic, mechanical and mechanical endurance performance levels to be met by shower hoses and extractable handspray hoses for sanitary tapware to qualify for the ECAU rating.

2.3 Field of application

This chapter applies to:

- shower hoses for sanitary tapware subject to Standard NF EN 1113;
- extractable handspray hoses for sanitary tapware subject to Standard NF EN 16146+A1.

2.4 References to standards and additional specifications

NF EN 1113: 2015

Sanitary tapware - Shower hoses for sanitary tapware for water supply systems type 1 and type 2 - General technical specifications

NF EN 16146+A1: 2015

Sanitary tapware - Extractable handspray hoses for sanitary tapware for water supply systems types 1 and 2 - General technical specifications

DT077-00 Regulations for use of marks



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 taps:

- pursuant to Standards NF EN 1113 and NF EN 16146+A1. 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 the Article:
- o 2.6 for products subject to NF EN 1113;
- 2.7 for products subject to NF EN 16146+A1;
- o 2.8 for products subject to NF EN 1113 and NF EN 16146+A1;

2.5.1 Meaning of E

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

There are 3 classes for this characteristic. See Article 2.10.1.1.

2.5.2 Meaning of C

The comfort characteristics taken into account are the materials for the hose nuts and the hydraulic performance.

There are 2 classes for this characteristic. See Article 2.10.2.1.

	С		
Standards	NF EN 1113	NF EN 16146+A1	
Class 1	Hose nut materials	Hose nut materials	
Class 2	Must be C1 Must be E1	 Must be C1 Must be E0 for extractable handspray hoses for washbasins, bidets and sinks. 	

2.5.3 Meaning of A

The acoustic characteristic shall not be taken into account for this type of product.



2.5.4 Meaning of U

The wear characteristic taken into account is the mechanical characteristic, endurance and, more precisely:

- for metal hoses (brass, stainless steel or aluminium):
 - o endurance of stripwound hoses;
 - o tensile shock resistance of stripwound hoses;
 - o rotational resistance of fastener;
- for plastic hoses:
 - rigidity.

There is 1 class for this characteristic. See Article 0.

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

2.6 Performance level for the ECAU rating for products subject to Standard NF EN 1113

2.6.1 Marking

No requirements in addition to those under the NF EN 1113 Standard.

2.6.2 Materials

No plastic nut to equip shower hoses for sanitary tapware.

2.6.3 Dimensional characteristics

No requirements in addition to those under the NF EN 1113 Standard.

2.6.4 Hydraulic characteristics

2.6.4.1 Flow rate

Verification of the flow rate value obtained with class E, see Article 2.10.1.1.

2.6.4.2 "Water saving" flow rate

This test applies to class C2.

To be examined for the ECAU rating, the "water saving" characteristic must meet the following requirements:

Hoses used in sanitary tapware are subject to a flow rate when they are used for showers and bath showers (on the shower outlet).

To ensure the flow rate, it seemed appropriate to use a test described in Article 8.2 of Standard NF EN 1113 and measure the flow rate value.

2.6.4.2.1 Test principle

The purpose is to determine, for the tested product, the value of the flow rate for a reference pressure 3 bar, also constant on the cold water supply.

The measurement is performed on a hose.

2.6.4.2.2 Equipment

See Article 8.2.3 of Standard NF EN 1113.

2.6.4.2.3 Operating procedure

- Supply the hose with a dynamic pressure of 0.3 (+ 0.02/0) MPa or 3 (+ 0.2/0) bar.
- Measure and record the flow values in the full flow position.



2.6.4.2.4 Required characteristics

Flow rate according to the product

Type of product	Flow rate requirements	
Shower and bath shower (shower output) hose	15 L/min ≤ q < 25.2 L/min	

2.6.5 Mechanical and leaktightness characteristics

No requirements in addition to those under the NF EN 1113 Standard.

2.6.6 Rotating fitting

No requirements in addition to those under the NF EN 1113 Standard.

2.7 Performance level for the ECAU rating for products subject to Standard NF EN 16146+A1

2.7.1 Marking

No requirements in addition to those under the NF EN 16146+A1 Standard.

2.7.2 Materials

No plastic nut to equip extractable handspray hoses for sanitary tapware.

2.7.3 Dimensional characteristics

No requirements in addition to those under the NF EN 16146+A1 Standard.

2.7.4 Hydraulic characteristics

2.7.4.1 Flow rate

Verification of the flow rate value obtained with class E, see Article 2.10.1.1.

2.7.4.2 "Water saving" flow rate

This test applies to class C2.

To be examined for the ECAU rating, the "water saving" characteristic must meet the following requirements:

Hoses used in a sanitary tapware are subjected to a flow rate when they are used for washbasins, bidets and sinks.

To ensure the flow rate, it seemed appropriate to use a test described in Article 8.2 of Standard NF EN 16146+A1 and measure the flow rate value.

2.7.4.2.1 Test principle

The purpose is to determine, for the tested product, the value of the flow rate for a reference pressure 3 bar, which is constant on the cold water supply.

The measurement is performed on a hose.

2.7.4.2.2 Equipment

See Article 8.2.3 of Standard NF EN 16146+A1.

2.7.4.2.3 Operating procedure

- Supply the hose with a dynamic pressure of 0.3 (+ 0.02/0) MPa or 3 (+ 0.2/0) bar.
- Measure and record the flow values in the full flow position.



2.7.4.2.4 Required characteristics

Flow rate according to the product

Type of product	Flow rate requirements	
Hose for washbasins, bidets and sinks	9 L/min ≤ q < 15 L/min	

2.7.5 Mechanical and leaktightness characteristics

No requirements in addition to those under the NF EN 16146+A1 Standard.

2.7.6 Rotating fitting

No requirements in addition to those under the NF EN 16146+A1 Standard.

2.8 Performance level for the ECAU rating for products subject to Standards NF EN 1113 and NF EN 16146+A1

2.8.1 Endurance characteristics of stripwound hoses

2.8.1.1 Test principle

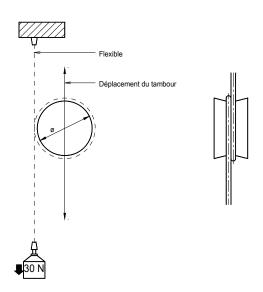
The test consists of verifying the behaviour of the strip winding during coiling of the hose.

The hose is subjected to a specified number of cycles.

2.8.1.2 Equipment

The test device is composed of:

- an anchor point of the hose to be tested;
- a force of (30 ± 3) N;
- a drum of a diameter of: (80 ± 3) mm;
- of an alternative machine driving the drum at a speed of (0.1 ± 0.01) m/sec.





2.8.1.3 Operating procedure

- Install the hose on the test device
- Adjust the H course of the drum to apply stress on the hose along its entire length, without applying stress at the fasteners.
- Submit the hose to 10,000 cycles.

2.8.1.4 Required characteristics

After the test, no visible signs of deterioration of the hose should be observed.

2.8.2 Tensile shock resistance of stripwound hoses

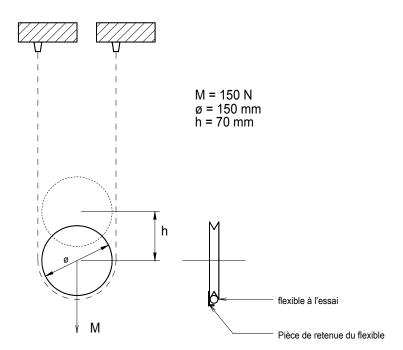
2.8.2.1 Test principle

The test consists of verifying the strip winding and the resistance of the end fittings.

2.8.2.2 Equipment

The device is composed of:

- two anchor points for fastening the end fittings of the hose to be tested;
- a cylinder with a diameter of (150 ± 5) mm bearing a force of (150 ± 5) N;



2.8.2.3 Operating procedure

- raise the cylinder and force by a height of (70 ± 5) mm
- release the assembly
- repeat this operation 3 times

2.8.2.4 Required characteristics

After the test, the hose must not show any visible signs of deterioration.



2.8.3 Rotational resistance of stripwound hose fastener

2.8.3.1 Test principle

The test consists of verifying the behaviour of the hoses regarding the resistance of the fasteners.

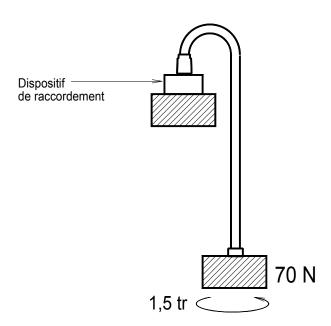
2.8.3.2 Equipment

The device is composed of:

- an anchorage point in the upper part simulating a shower or bath shower tap outlet;
- a force of (70 ± 5) N

2.8.3.3 Operating procedure

- attach the hose to be tested on the device;
- apply force to the other end of the hose;
- apply a rotation equal to 1.5 turns in the opposite direction to the coiling of the hose;
- maintain the rotational force by mechanical means to prevent it from returning over (15 \pm 1) min.



2.8.3.4 Required characteristics

After the test, no visible signs of deterioration of the fastener or the hose must be observed.



2.8.4 Rigidity test

This test only applies to plastic hoses.

2.8.4.1 Test principle

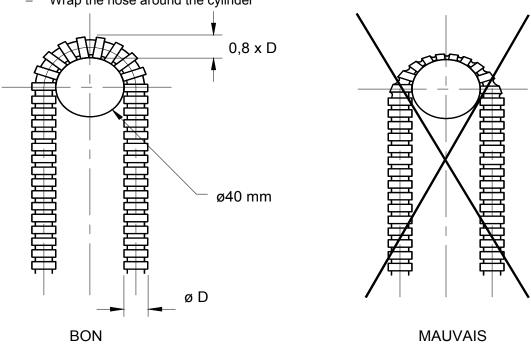
The test consists of verifying the rigidity of the hoses at pipe.

2.8.4.2 Equipment

The device consists of a cylinder with a diameter of (40 ± 1) mm.

2.8.4.3 Operating procedure

Wrap the hose around the cylinder



2.8.4.4 Required characteristics

The outer diameter of the hose in the event of deformation must not be less than 0.8 x D.

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2.9 Test sequence

2.9.1 Sequence of tests for products subject to Standard NF EN 1113

Sample Sequence	Order	Tests				
Sample 1 Materials	1.	§6.2A Materials (salt spray)				
Sample 2 Materials	1.	§6.2B Materials (air thermal shock)				
Sample 3		Sampl	e 3 C1	Samp	le 3 C2	
Hydraulic	1.	§5 Marking		§5 Marking		
	2.	§7 Dimensional		§7 Dimensional		
	3.	§8 Hydraulic characteristic		§8 Hydraulic characteristic		
	4.	§2.6.4.1 Class E for flow rat	te	§2.6.4.1 Class E for flow ra	te	
	5.			§2.6.4.2 "Water saving" flow	v rate	
Sample 4	1.	§5 Marking				
Tensile strength	2.	§9.2 Tensile strength				
3. §9.5 Leaktightness after tensile and bending strength			sile and bending strength tes	ests		
Sample 5 1. §5 Marking						
Bending	2.	§9.3 Bending strength				
	3.	§9.5 Leaktightness after tensile and bending strength tests				
Sample 6	1.	§5 Marking				
Resistance to pressure	2.	§9.4 Resistance to pressure at high temperature				
Sample 7	1.	§5 Marking				
Thermal shock	2.	§9.6 Thermal shock reaction	n			
	3.	§9 Leaktightness				
Sample 8	1.	§5 Marking				
Rotating fitting	2.	§10 Rotating fittings				
Sample 9-10-		Sample 9 U3	Sample 10 U3	Sample 11 U3	Sample 12 U3	
11-12	1.	§5 Marking	§5 Marking	§5 Marking	§5 Marking	
	2.	§2.8.1 Endurance of stripwound hoses	§2.8.2 Tensile shock resistance of stripwound hoses	2.8.3 Rotational resistance of stripwound hose fastener	§2.8.4 Rigidity test of "plastic" hoses	



2.9.2 Sequence of tests for products subject to Standard NF EN 16146+A1

Sample Sequence	Order	Tests			
Sample 1 Materials	1.	§6.2A Materials (salt spray)			
Sample 2 Materials	1.	§6.2B Materials (air thermal shock)			
Sample 3 Sample 3 C1 Sample 5			le 3 C2		
Hydraulic	1.	§5 Marking		§5 Marking	
	2.	§7 Dimensional		§7 Dimensional	
	3.	§8 Hydraulic characteristic		§8 Hydraulic characteristic	
	4.	§2.7.4.1 Class E for flow ra	te	§2.7.4.1 Class E for flow ra	ite
	5.			§2.7.4.2 "Water saving" flow	w rate
Sample 4	1.	§5 Marking		1	
Tensile strength	2.	§9.2 Tensile strength			
onongai	3.	§9.5 Leaktightness after ter	nsile and bending strength tes	sts	
Sample 5	1.	§5 Marking			
Bending	2.	§9.3 Bending strength			
	§9.5 Leaktightness after tensile and bending strength tests				
Sample 6	1.	§5 Marking			
Durability	2.	§9.4 Durability test			
Sample 7	1.	§5 Marking			
Resistance to pressure	2.	§9.4 Resistance to pressure	e at high temperature		
Sample 8	1.	§5 Marking			
Thermal shock	2.	§9.6 Thermal shock reaction			
	3.	§9 Leaktightness			
Sample 9	1.	§5 Marking			
Rotating fitting 2. §10 Rotating fittings					
Sample 10-11-		Sample 10 – U3	Sample 11 – U3	Sample 12 – U3	Sample 13 – U3
12	1.	§5 Marking	§5 Marking	§5 Marking	§5 Marking
	2.	§2.8.1 Endurance of stripwound hoses	§2.8.2 Tensile shock resistance of stripwound hoses	2.8.3 Rotational resistance of stripwound hose fastener	§2.8.4 Rigidity test of "plastic" hoses



2.10 ECAU rating

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.

2.10.1 Hydraulic or flow characteristic

2.10.1.1 Classification

Depending on performance level, shower hoses and extractable handspray hoses for sanitary tapware can be classified as follows:

Class	Flow rate value		
	NF EN 1113	NF EN 16146+A1	
E0		9 L/min ≤ q < 15 L/min	
E1	15 L/min ≤ q < 25.2 L/min	15 L/min ≤ q < 25.2 L/min	
E2	25.2 L/min ≤ q	25.2 L/min ≤ q	

2.10.1.2 Selection criteria

Flow rate class selection will be based on:

- the supplied device;
- the building comfort level;
- the type of room to be equipped.

2.10.2 Comfort characteristics

2.10.2.1 Classification

Depending on their performance level, shower hoses for sanitary tapware and extractable handspray hoses for sanitary tapware can be classified as follows:

Class	Shower hoses for sanitary tapware and extractable handspray hoses for sanitary tapware must comply with the requirements of the following articles:		
	NF EN 1113	NF EN 16146+A1	
C1	2.6.2 Materials	2.7.2 Materials	
C2	Must be C1	Must be C1	
	Must be E1	Must be E0	

2.10.2.2 Selection criteria

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

2.10.3 Acoustic characteristic

No acoustic characteristics for this type of product. In this case, class "A₀" is used.



2.10.4 Mechanical endurance or wear resistance characteristic

Classification

Depending on the actual level of wear resistance of its various components, tapware can be classified as follows:

Class	Tests		
U3	Metal hoses	Strip winding endurance	
03		Tensile shock resistance	
		Rotational resistance of strip winding	
	Plastic hoses	Pipe rigidity	

2.10.4.1 Selection criteria

U₃: intensive use and use in harsh conditions.

2.11 Example of ECAU rating

A metal shower hose for sanitary tapware with a flow rate during use of 27 L/min that passes comfort level 1 tests and passes the mechanical endurance test shall be classified as:

 $\mathsf{E}_2\,\mathsf{C}_1\,\mathsf{A}_0\,\mathsf{U}_3$

An extractable handspray hose for sink and washbasin mixers with a flow rate during use of 10 L/min that passes comfort level 2 tests and that passes the mechanical endurance tests shall be classified as:

 E_0 C_2 A_0 U_3



2.12 Rating presentation

2.12.1 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 and extractable handspray hoses for sanitary tapware are as follows:

Flow	E	ʻq'	E0	9 L/min ≤ q < 15 L/min				
		L/min measured		L/min measured		E1	15 L/min ≤ q < 25.2 L/m	nin
	under 3 bar	E2	25.2 L/min ≤ q					
Comfort	С	Туре	C1	Materials (Non-plastic nut for hoses)				
			C2	Water saving system (must be E0 (NF EN 16146+A1) or E1 (NF EN 1113))				
Acoustics	Α	Lap dB (A)	A0	No acoustic requirement				
Wear	U	Number of	U3	Metal hoses	Strip winding endurance			
		cycles		Tensile shock resistance				
				Rotational resistance of strip winding				
				Plastic hoses	Pipe rigidity			

2.12.2 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

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

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 1 A;
- if a representative, application and commitment letter as per standard letter 1 B;

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 2 A;
- if a representative, application and commitment letter as per standard letter 2 B;

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 5 A;
- **if a representative,** a suspension letter as per standard letter 5 B.



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.



STANDARD LETTER 1A ECAU AND/OR ECHAU RATINGS

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



STANDARD LETTER 1B

ECAU AND/OR ECHAU RATINGS

ECAU OR ECHAU RATING APPLICATION FORM FOR APPLICANTS LOCATED <u>OUTSIDE</u> 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: **ECAU** and/or **EChAU** rating admission application (with a representative) 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.

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 <u>name in full</u> 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
Attachme	nt(s): a technical file.

Dear Sir, Madam,

As holder of the ECAU and/or EChAU rating for the product(s) of our 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 am writing to apply for the ECAU and/or EChAU rating for the following product/range of products 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:

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

- NO (1);
- YEŜ (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 <u>name in full</u> 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) of our 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 am writing to apply for the ECAU and/or EChAU rating for the following product/range of products 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:

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.

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 <u>name in full</u> of the applicant's legal representative

preceded by the handwritten wording "Approving representation"

(1) Delete as appropriate.

Date, signature and <u>name in full</u>
of the representative in the European Economic
Area

preceded by the handwritten wording "Accepting representation".



STANDARD LETTER 4A ECAU AND/OR ECHAU RATINGS

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, (HÉS) 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:
- 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 <u>name in full</u> of the holder's legal representative



STANDARD LETTER 4 B ECAU AND/OR ECHAU RATINGS

(to be drawn up on the distributor's letterhead)

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



STANDARD LETTER 5A ECAU AND/OR ECHAU RATINGS

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:

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 <u>name in full</u> of the holder's legal representative			



STANDARD LETTER 5B ECAU AND/OR ECHAU RATINGS

APPLICATION FORM FOR SUSPENSION OF THE ECAU AND/OR ECHAU RATING FOR APPLICANTS LOCATED <u>OUTSIDE</u> 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: 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:

	e, signature and <u>name in full</u> of the holder's Date, signature and <u>name in full</u> of the representative in the European Economic Area
Your	rs faithfully,
The	anticipated time it will take to deplete them is:
The	inventories of these products with packaging marked ECAU or EChAU are the following:
Man	ufacturing is due to cease on:
for a	maximum duration of 6 months, renewable once.
-	
for th	ne following reasons:
-	date of ECAU and/or EChAU rating admission: or certificate No.:
-	commercial reference:
-	brand name:
-	manufacturing unit: (company name, address):
-	designation of the product(s):



STANDARD SHEET 7 ECAU AND/OR ECHAU 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.

	MINIMUM PROOF TO BE SUPPLIED BY THE CSTB	
ACTIONS	APPLICANT SHOWING THE ACTIONS THEY HAVE	VALIDITY OF THE PROOF RECEIVED
	UNDERTAKEN TO FULLY ADDRESS AND REMEDY	
	THE CAUSES AND CONSEQUENCES	
CURATIVE	A list of those affected including full contact	☐ List sent
ACTIONS	details (customers, prospects, technical	☐ List not sent
	controllers, etc.) who have received false	Comments:
	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 of customers, including full contact details, who have received products with	1 —
	inappropriately marked packaging	List not sent
	information; otherwise, the list of customers	Comments:
	of the past 24 months.	
	Letter written by the Applicant's manager	CSTB will verify that this action has been carried out
	informing those affected of the invalidity of	by contacting 5% of those affected or at least 5
	the false attestations/false certificates they	customers and technical controllers.
	have been sent.	
		☐ 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	CSTB will verify that this action has been carried out
	informing the customers of products that are	by contacting 5% of the customers or at least 5
	inappropriately marked or products bearing	customers
	the certification mark(s).	
		☐ Letter of information duly implemented,
		corroborated by those affected
		☐ Letter of information not implemented or partially
		implemented
		Comments:
	Action undertaken against the person or	☐ Action is relevant
	persons responsible for approving and	☐ Action is not relevant
	issuing the false attestations/false certificates	Comments:
	and/or delivering inappropriately marked	
	products.	



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

Nature of the service	Definition of the service	Paying for the services
Management: Development and implementation of ratings, examination of the rating application	Development and implementation of ratings, xamination of the rating implementation of the rating implementation of the rating implementation of application files, relations with application files.	
Management: Rating operation	Services including management of rating files, relations with holders, laboratories, publication of ratings data on certificates, assessment of inspection results.	➤ Monitoring: See § 4.2.2
Tests	Laboratories' testing services	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. Initial/complementary application: See § 4.2.1 Monitoring: See § 4.2.2



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.

