

## I CHOOSE QB !

### QB 10, the only certification that


- Spotlights the durability and functional performance of your products, **beyond the European product standard**, as set out in Technical Appraisals (Avis Technique);
- Is committed to carry out tests on your products in CSTB laboratories, accredited by Cofrac.

### For sanitary applications:






- ensures compliance of products with the European standard NF EN 13618;
- which certify your products beyond the product standard, according to the claimed pressures.

### For HVAC applications:

- ensures compliance of products to the specifications of the CSTB technical guide.



### QUALITY FIRST

-  Certified performance over time
-  Streamlined decision support
-  A lever for progress in the sector
-  Greater trust between stakeholders
-  More satisfaction for customers

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**FIND OUT MORE**  
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<http://evaluation.cstb.fr/en/certifications-products-services/product/flexibles-raccordement/>

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**CSTB**  
le futur en construction

Design: Nadège Thell - Photos: CSTB, Adobe Stock/Boggy - October 2019

### QUALITY FIRST

FLEXIBLES HOSES



### QUALITY IN BUILDING

The certification mark of **CSTB**  
le futur en construction

[qb.cstb.fr/en](http://qb.cstb.fr/en)

QB10

## TURNKEY CERTIFICATION

QB is for any stakeholder who puts quality assurance first, to ensure that construction works incorporate reliable products with technical characteristics certified by third-party bodies like the CSTB.

The CSTB – Centre Scientifique et Technique du Bâtiment, a French state-owned industrial and commercial company, delivers QB certification. QB confirms the compliance of the tested products with established reference system for an area of application, and highlights the performances of tested products.

The CSTB supports you comprehensively, from applying for certification to carrying out tests in its laboratories and audits in your plants, until issuance of the certificate and its posting online at [site.evaluation.cstb.fr/en](http://site.evaluation.cstb.fr/en).

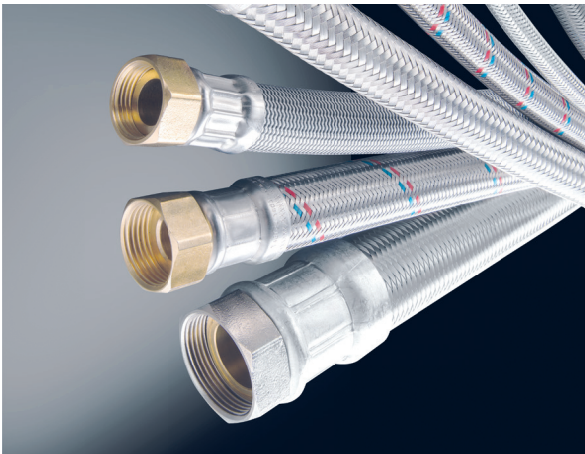
The CSTB has been certifying flexible hoses for more than 30 years.

# QB CERTIFIED PRODUCTS

QB 10 certifies all flexible hoses for sanitary hot and cold water and HVAC.

## Flexible hoses

- With or without braiding.
- With stainless steel or synthetic braiding.
- All connection types with internal EPDM, Butyl, PEX, PERT, HDPE, Silicone or TPSiV tube, multilayer PE.



# CERTIFIED CHARACTERISTICS

## Durability of materials

Specific tests depending on the area of application : sanitary or HVAC.

- Pressure tests at:** 3 times the maximum allowable pressure at high temperatures (up to 110°C).
- High-temperature testing:** experimental heating circuit developed by the CSTB, unique in the world.

## Material characteristics

Assessed and monitored over time using specific tests, including:

- Crosslinking
- Oxidative-induction time (OIT)
- Hardness
- Volume change in water
- Compression set
- Determination of stress-strain
- Determination of tensile stress - strain properties
- Spectrometric analysis of brass and metal

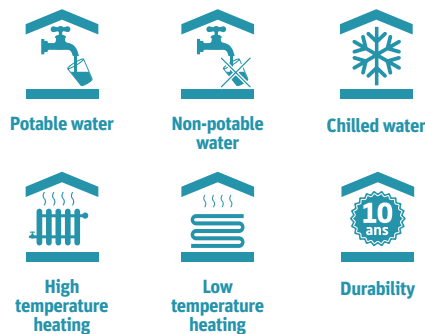
## Functionalities

- Dimensional characteristics
- Fitness for use
- Installation characteristics

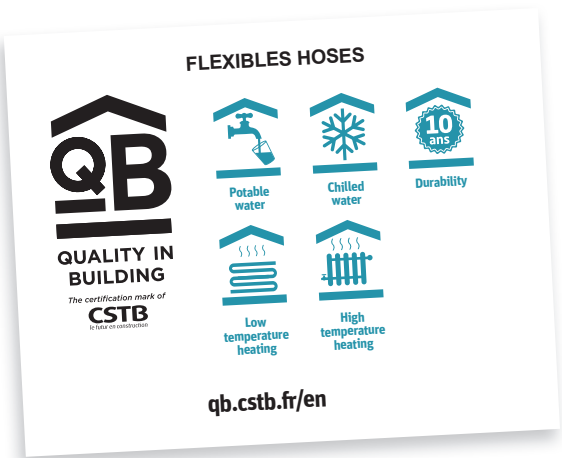
# PICTOGRAMS RELATED TO THE APPLICATION FIELDS AND PERFORMANCE

These options are emphasized on the certificates with pictograms for each area of application and additional features.

## Application fields and performances



## Example of sticker showing application fields and performances



# RIGOROUS PROCESS



## In plants audits

- In-plant product sampling.
- Review of the company's quality procedures.

## Test

Products are tested in CSTB laboratories, satisfying the requirements in the ISO 17025 standard (Cofrac accredited).



These checks validate the quality and fitness for use of products based on European standards and additional stringent performance standards determined with the stakeholders.

## Certificate and marking

After auditing and testing, the manufacturer is granted the right to use the QB logo on the product and its packaging and in its marketing materials. Certified characteristics are specified on the certificate issued by the CSTB. All certified products receive a certificate, available on the website [evaluation.cstb.fr/en](http://evaluation.cstb.fr/en).

Any misuse of the QB mark is subject to prosecution.