

COOPERATING SKILLS

CERTITA is supported by the means and skills of its founding shareholders and recognized organizations in their field of expertise:



Association Technique
des Industries Thermiques
et Aérauliques



Centre Technique
des Industries Aérauliques
et Thermiques



Centre Scientifique
et Technique du Bâtiment



Laboratoire National
de Métrologie et d'Essais

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CERTITA S.A.S.

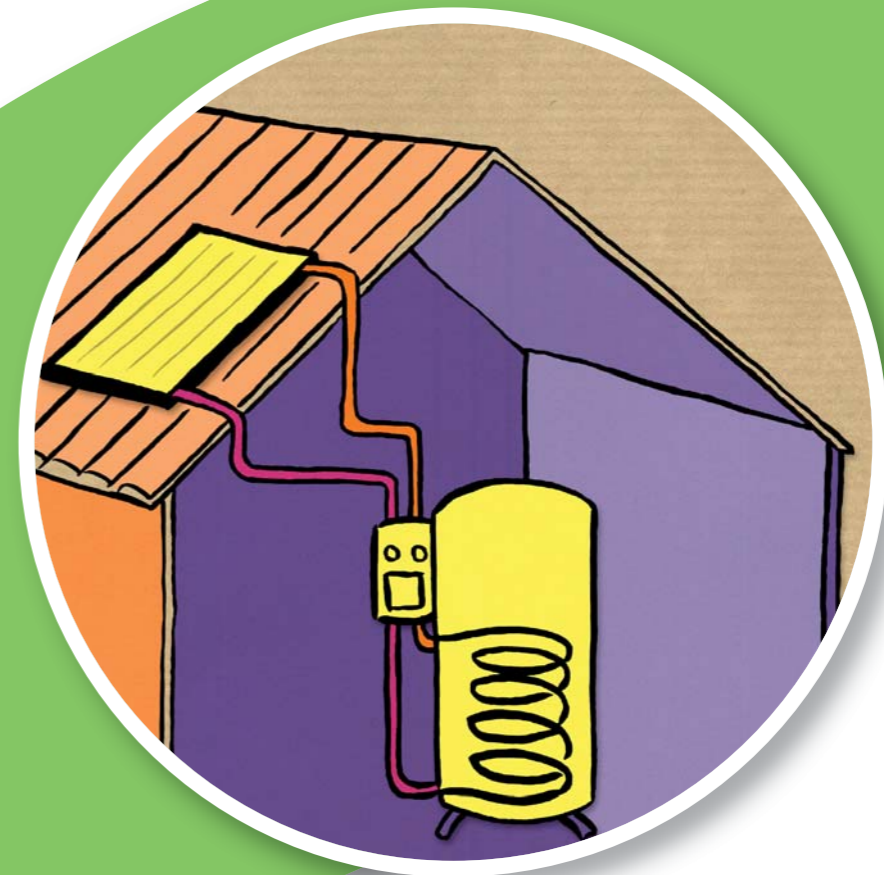
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ACHIEVING CERTIFICATION

FOR DOMESTIC SOLAR WATER HEATERS



NF DOMESTIC SOLAR WATER HEATERS A NEW MARK TO TAKE THE LEAD IN FRANCE AND ABROAD

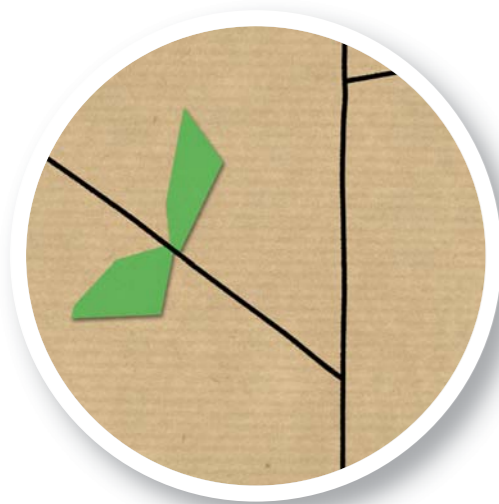
ENHANCE YOUR PERFORMANCE WITH THE NF MARK



In consideration of the European Directives, the French Environmental schedule for improving energy efficiency and the French Thermal regulations, the NF Mark for Domestic Solar water heaters was developed in connection with the Thermal solar professional network.

It aims at certifying energetic efficiency and the energy delivery of the system (solar collectors/ storage tank/control system/circulating pump).

This new NF scheme was built using an innovative approach combining tests and simulation calculations. Fast full-line certification of whole ranges of products can thus be achieved in a reliable and objective way, benefitting from assessment audits and optimized testing programs.



NF MARK TO HIGHLIGHT THE COMPETITIVENESS OF YOUR PRODUCTS

NF brings major benefits to manufacturers, stakeholders and installers:

- The reputation of a recognized third party certification (85% of questioned people in France know NF certification), issued by CERTITA under AFNOR Certification.
- The guarantee for users and buyers of reliable performance displayed through a dual process of initial assessment and monitoring of products and manufacturing units.
- It is a key convincing point for being recognized by leading specifiers.

GAIN THE SOLAR KEYMARK WITH CERTITA AND ENLARGE YOUR POTENTIAL OF DEVELOPMENT

Our one-stop certification process allows you to obtain dual certification with a single application.

As the two schemes are complementary processes in that they do not address the same markets and commercial expectations, **CERTITA offers a bundle NF /Solar Keymark package.**

Operations (tests, audits) carried out on behalf of the NF Mark will be taken into account by the Solar Keymark for which specific additional tests will have to be conducted.

THE NF CERTIFICATION IS CONSISTENT WITH THE SOLAR KEYMARK

Both certification schemes are consistent and refer to the same European standards, however they are not identical. The Solar Keymark requires compliance with all specifications of the product standard (EN 12976) and therefore more verification testings are conducted. These additional tests will be conducted jointly with NF testings.

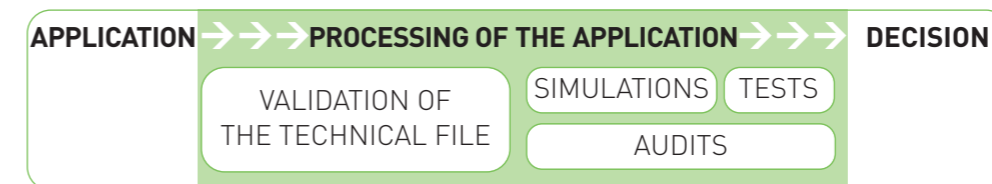
WHAT SOLAR SYSTEMS DOES THE NF MARK COVER?

Domestic solar water heaters with forced circulation and separate elements, with or without supplementary heating built into the storage tank.

WHAT ARE THE NF CERTIFIED PROPERTIES?

- The energy efficiency = $\frac{\text{Power requirements for domestic water heating/supplementary}}{\text{Energy supplied + Energy consumed by the auxiliary components}}$
- The energy produced by the solar system in the case of systems without supplementary heating.
- The whole set of parameters for the solar loop, the collectors and the storage, enabling to reach the system's contribution to the energetic performance of buildings according to the French regulation.

HOW TO OBTAIN THE NF MARK?



- 1 The manufacturer sends to CERTITA a file including the description of the product lines covered by the application.
- 2 CERTITA processes the application and sets up with the applicant the schedule of operations (audits, simulations and tests).
- 3 The plants (manufacturing tanks and collectors, systems assembly) establish and implement a quality control system according to the requirements of the NF Mark.
- 4 CERTITA carries out audits to assess the conformity to NF requirements of the on-site verifications.
- 5 The performances of the systems are determined by tests and simulations performed by the laboratories of the NF Mark.
- 6 CERTITA grants the NF certificates, provided the assessment's conclusions are satisfactory.

Surveillance procedure:

Once certification is granted, yearly surveillance audits are conducted to check that quality control requirements are regularly met on site. In addition, partial cross verification tests are carried out by the laboratories of the NF Mark, in reference to the initial tests, on products sampled during the audits. Up to 5 certified ranges, one verification test is made every second year, and beyond 5 certified ranges one annual test is made.

TECHNICAL CENTERS UP TO YOUR DEMANDS

The NF testing laboratories verify the systems' performances through tests and simulation according to the European standards.

They are:

- BELENOS Center (a joint operation between CETIAT and LNE), Nîmes, France
- CSTB laboratories, Sophia Antipolis, France

NOTE:

The characteristics of a range of systems can be verified using simulation and extrapolation and the results of tests performed on the sole reference system(s), whose definition depends on the range of storage volumes and collectors' aperture areas. No further verification (either test or audit) is required for collectors that are already CSTBat certified or Solar Keymarked.