
The Nice Quality
Nice invests
in quality and safety
Nice

100%
Quality

Quality doesn't come easily

Safe and fully compliant products

All Nice products comply with the relevant **European Directives**, among these the most well-noted are:

Directive 2004/108/CEE
(ex 89/336/CEE):
Electromagnetic Compatibility

Directive 1999/5/EC
Radio and Telecommunications Terminal Equipment

Directive 2006/95/EC
(ex 73/23/EEC):
Low Voltage

Directive 98/37/EEC
Machinery Directive

Directive 89/106/EEC
Construction Products

For **non-EEC markets**, Nice applies **international standards** for its products, such as:

UL 325
Requirements for exports of "Door, Drapery, Gate, Louver and Window Operators and Systems" into the U.S.A.

FCC part 15
U.S. standards for "Radio Frequency Devices"

IEC 60950-1
International standards for the electrical safety of ITE

CAN/CSA-C22.2 No. 247-92
Canadian standard for "Operators and Systems of Doors, Gates, Draperies, and Louvres"

The Nice laboratory in figures

The Nice laboratory occupies a surface area of 370m^2 and houses leading-edge equipment and instruments:

Semi-anechoic chamber
- CISPR22-compliant (30MHz-18GHz range) by Teseo for emission testing
- EN 61000-4-3-compliant (26MHz-18GHz) by Teseo for radiated immunity testing
- external size: 9m x 6m x 6m (lxdxh)
- distance between the aerial and the device = 3m
- door size: 1m x 2m (lxh)
- anechoic material: TDK
- turntable: 2m diameter, 750kg capacity, with automatic handling
- aerial mast: with automatic handling (1m-4m) and aerial polarisation change
- screening efficiency greater than 100dB for frequencies >10kHz
- video camera monitoring with optical fibre connection
- two access panels with wave-guides and connectors for air, water and signal inlet/outlet
- internal three-phase power

Acoustic chamber
- EN ISO 3745-compliant built by the University of Ferrara
- external size: 4.65m x 4.1m x 3.3m (lxdxh)
- anechoic material: polyester fibre sound-absorbing wedges
- background noise less than 20dB

Climatic chambers
- three climatic chambers of various sizes (small, medium and large)
- external measurements of the largest chamber: 5m x 4.5m x 3.5m (lxdxh)
- temperature range: -50°C to +80°C
- humidity: 0% - 99%
- frost effect simulation
- the external PC interface allows for a series of various “climatic conditions”

Saline fog
- 506lt capacity (630lt including cover area)
- internal measurements 900mm x 650mm x 820mm (lxdxh)
- temperature: room temperature to +55°C
- relative humidity range: 50% to 98%
- wet-bulb probe for relative humidity readings
- µPLC control complete with "KeyKratos" touchscreen
- wetting test

Chamber for dust penetration tests
- CEI EN 60529-compliant
- chamber with IP5X – IP6X protection
- size of chamber: 96cm x 105cm x 185 cm (lxdxh)
- testing area: 85cm x 95cm x 95cm (lxdxh)

EN 17025-accredited laboratory:

TÜV

Nemko
No.388

In accordance with Annex V of directive 1999/5/EC, Nice is certified by Notified Body:

CETECOM
0682

SMT laboratory n° 42 in NF certification environment

Nice goes even further. Continuing top performance

The Nice laboratory performs **additional tests that are not requested by specific standards.**
These tests are useful for product development, research and to guarantee ongoing benefits to customers.

Here are some examples of additional tests.

- **Testing the noise emissions of products in an acoustic chamber** in order to obtain more uniform products, reduce waste and improve quality.
- **Testing the safety and functions of Nice products in climatic chambers** where the most rigid climates are simulated in terms of temperature and humidity. The size of the large climatic chamber **allows for the testing of real automation.**
- **Testing the lifespan of products and the durability of their stated performance features.**

1 *Acoustic chamber test – graph of external PC interfaced with the chamber*

2 *Acoustic chamber test on tubular motor vibrations*

3 *External view of a climatic chamber with gate prototype*

4 *Climatic test on Robus (temperature: -50°C to +80°C)*

5 *Climatic test on Robus detail of external PC interfaced with the chamber*

6 *Climatic test on Robus – climatic conditions on external PC interfaced with the chamber*

7 *Product lifespan test*

8 *Performance test in UV chamber on transmitter module*

100%
Nice

Nice takes things seriously

Guaranteed safety, leading-edge laboratory

Nice has made **significant investments** to guarantee **increasingly higher levels of quality** that comply with directives and standards, while also obtaining continual product improvement. **Safety, quality, reliability and durability** are priorities for Nice.

Each day at its in-house laboratory increasingly stricter tests and checks are performed to improve the reliability of existing products and to develop **new generations of more effective and leading-edge products.**

The Nice laboratory complies with **EN 17025** standards which set the general requirements for testing labs and for company **ISO 9001 certification.**

Nice has gone even further: the laboratory is accredited by **Nemko**, **TÜV Rheinland** and **Cetecom**, which further demonstrates its ability to perform special testing methodologies and its technical and operating expertise.

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Electromagnetic Compatibility

Directive **89/336/EEC**

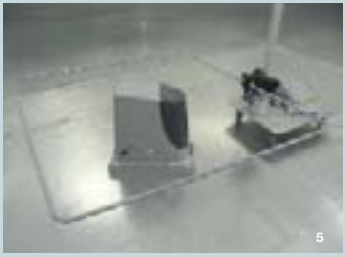
Directive 89/336/EEC sets the requirements for placing electrical or electronic equipment on the EU market, in order to ensure that:

• the electromagnetic emissions of this equipment are limited to a level that does not prevent other radio and telecommunications equipment from operating as intended;

• such equipment has an adequate level of immunity to electromagnetic interference in order to operate as intended.

Compliance tests can be classified into two main categories: those that demonstrate compliance with **emission limits** (the equipment must not create interference) and those that demonstrate compliance with **immunity requirements** (the equipment must continue to operate with outside interference).

The Nice laboratory performs electromagnetic compatibility tests on all the product lines.



1-2 *Radiated immunity test on Robus in a semi-anechoic chamber*

3 *Burst immunity test on Run*

4 *ESD immunity test on Run*

5 *Network frequency magnetic field immunity test*

Low Voltage
Directive **73/23/EEC**

Directive 73/23/EEC, also known as "Low Voltage " sets the safety criteria for placing electrically-powered materials, units and machinery on the market. Products that are manufactured in compliance with existing technical standards are considered to be in compliance with the directive's safety objectives.

The goal of electrical safety tests is to verify that the product is sufficiently safe during normal use and in anomalous conditions.

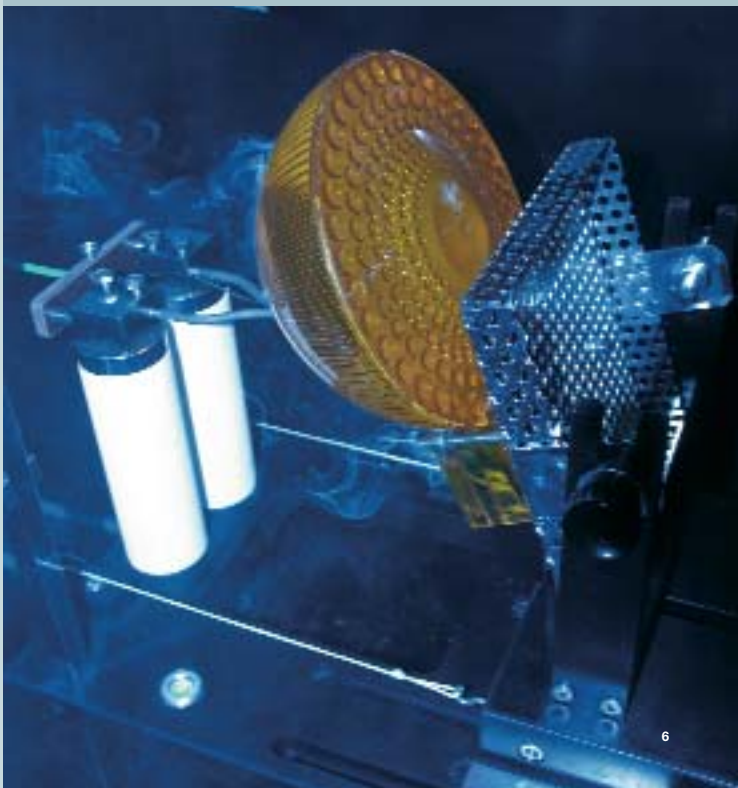
The following are some harmonised standards that apply to most Nice products under this directive:

- **EN 60335-1**
Particular requirements for the safety of household and similar electrical applicances

- **EN 60335-2-95**
Particular requirements for drives for vertically-moving garage door for residential use

- **EN 60335-2-97**
Particular requirements for drives of rolling shutters, awnings, blinds and similar equipment

- **EN 60335-2-103**
Particular requirements for actuators for powered gates, doors and windows



6 *Incandescent wire test on MoonLight*

7- 8 *IP test on Mindy A824 control unit in dust chamber*

9 *Magnetic field emissions on a tubular motor*

10 *Hammer test on Mindy A824 control unit*

11 *Sphere impression test on Mindy A01 control unit*

12 *Saline fog test on a tubular motor*

13 *Saline fog test detail of the "KeyKratos" touchscreen*

14 *Finger test on Spin*

15 *Instruments for electrical safety tests*

Radio and Telecommunications Terminal Equipment

Directive **1999/5/EC**

Directive R&TTE (Radio & Telecommunications Terminal Equipment) sets the standards for the sale, free circulation, and the putting into service of radio and telecommunications terminal equipment in the European Community.

The primary objective of this directive is to set the "essential requirements" to:

• guarantee the efficient use of the spectrum of radiofrequencies in order to avoid harmful inteference;

• prevent the unacceptable deterioration of services other than those related to radio and telecommunications terminal equipment;

• prevent a deterioration in the performance of telecommunications networks in conditions of normal use;

• prevent disturbances that can represent a hazard to the health of human beings and to goods;

• guarantee safe use in normal and breakdown conditions;

• establish roles and responsibilities in the event of damage caused by detective products.

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16 *Example of a graph showing the results of an ERP emission test on a radio-control*

17 - 18 - 19 *Aerial for ERP emission tests in a semi-anechoic chamber*

Machinery Directive Directive **98/37/EEC**
Construction Products Directive **89/106/EEC**

Directive 98/37/EEC sets the basic safety and health requirements that machinery and its safety components must meet while being built and before being placed on the market.

The directive requires builders to affix the CE mark on their machinery and to prepare a statement of conformity attesting to compliance with the basic safety and health requisites contained in the directive.

Directive 89/106/EEC is applied to construction products, defined as being products that are produced for incorporation in a permanent manner in construction works.

Construction products may be placed on the market only if suited for their intended use.
They must therefore allow construction works to meet, for an economically acceptable lifespan, basic requirements in terms of:

- mechanical resistance and stability;
- safety in the event of fire;
- hygiene, health and the environment;
- safe use;
- noise protection;
- energy savings and heat retention.

The impact toughness test is one of the tests performed in Nice laboratory to ascertain the action of the force limiting system.

20 *Impact toughness test on sectional door*

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