Isolator Gloves and Sleeves

Hands under **high security**

PIERCAN GLOVES

Expertise that is renowned WORLDWIDE

PIERCAN is the leader in the field of containment gloves, setting the standard for both Quality and Responsiveness.

Since 1948, PIERCAN has been the world leader in the development and production of containment technologies. PIERCAN's policy is characterized by innovation, quality and prompt service, while embracing the principles of corporate social responsibility. PIERCAN produces containment gloves for glove boxes, RABS and isolators, and also offers secure glove changing systems such as the BCS ring for pharmaceutical applications and the STIC ring for nuclear applications. PIERCAN also offers a wide range of technical parts in elastomers and flexible plastics (sleeves, hemiscaphanders, flexible isolators, etc.).

With its first-rate customer service, innovation and quality standards, PIERCAN is able to partner with its customers to find the best solutions to their needs. The American subsidiary, PIERCAN USA INC, created in 1995, is located in San Marcos, California, and handles the same product categories as Port-en-Bessin.

3
Production centers
in France and in the USA

80
years of expertise at
our customers' service

50
PIERCAN **supplies** into
more than **50 countries**

20
Partners / Distributors
worldwide

OPERATIONAL SECTORS:

Pharmaceutical *industry*

- Usage of gloves:
  Protecting products from the outside environment while also protecting users.

Nuclear *industry*

- Usage of gloves:
  To protect users from radioactive contamination and ionising radiation.

Other **sectors**

Hospitals,
Aerospace industry
Food industry,
Research....

INNOVATION, our response to a world in constant flux

Understanding and, above all, anticipating the needs of our customers means that our Research and Development (R&D) and Innovation departments are able to offer solutions that are a perfect fit in terms of changes in the working environment and customer expectations. PIERCAN has made innovations to safely and quickly change gloves, and is focused on new innovations to improve glove traceability and development of new materials for improved performance.

PIERCAN'S **R&D LABORATORY**

PIERCAN invests heavily in Research & Development. Since its creation in 1948, R&D has been one of the core elements of the PIERCAN group's strategy. Its laboratory is equipped with the latest technology.

THE LATEST DEVELOPMENT: **EPDM** (ETHYLENE PROPYLENE DIENE MONOMER)

PIERCAN'S EPDM glove is the only one in the range with a composition that complies with the FDA positive list (§ 1772600, CFR 21). These features mean it is placed among the best elastomers with an outstanding ability to withstand steam sterilisation, excellent resistance to H_2O_2 along with very good mechanical resistance and superb flexibility.

THE **NEW SECURE CUFF RING** BY PIERCAN (BCS RING)

PIERCAN isolator gloves protect users and products from the risk of irreversible damage. The gloves fitted to the cuff ring will be changed on multiple occasions, which often involves delicate and complex handling that takes time. With the new secure cuff ring, PIERCAN offers an innovative and effective solution that simplifies operations and ensures they are conducted safely.

Glove Range

NUCLEAR PHARMACEUTICAL

The PIERCAN glove range is very wide, with more than a dozen materials (see opposite) in several thicknesses. Some of these references are now available from stock.

THE 3 TYPES OF GLOVES

1 • One-Piece gloves
Also known as isolator gloves, these are one-piece seamless gloves that are used to handle objects in an enclosed environment.

2 • Sleeves
Sleeve systems offer the operative an ergonomic fit and perfect freedom of movement. The sleeve is connected to an ELS glove via the Secure Cuff Ring developed by PIERCAN.

3 • ELS gloves (or short gloves)
ELS gloves are connected to sleeves. These ELS glove/sleeve systems are mainly used in pharmaceutical laboratories and hospitals.

Decontaminated and **sterilized** gloves

For over 20 years, PIERCAN has offered its customers decontaminated and sterilised gloves. This service is intended in particular for pharmacy environments (pharmaceutical laboratories, hospitals, etc.) but it may also be for industries in which an extremely high level of cleanliness is now absolutely vital (space, military, research, etc.). Please do not hesitate to request documentation about this service.

The **Materials**

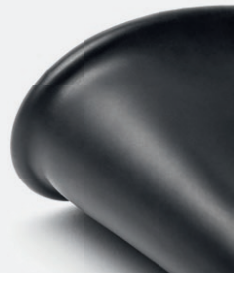
CSM

- Very good ability to withstand chemical products and sterilizing agents
- Highly resistant to ozone and UV rays
- Very good ability to withstand sterilization (gamma and beta rays)

BLACK EPDM

- Excellent ability to withstand chemical products and chemical sterilizing agents
- Anti-static
- Good mechanical properties
- Excellent ability to withstand steam sterilizing

The composition of this glove is compliant with the FDA positive list (§ 1772600, CFR 21)



BLACK AND WHITE EPDM

- Excellent ability to withstand chemical products and chemical sterilizing agents
- Good mechanical properties
- Excellent ability to withstand steam sterilising
- Specially adapted for the constraints of a pharmaceutical laboratory in terms of the exterior colour (white)

The composition of this glove is compliant with the FDA positive list (§ 1772600, CFR 21)

NEOPRENE

- Good general resistance to chemical products
- Good mechanical properties
- Good resistance to ozone and UV rays
- Good flexibility and dexterity
- Good technical and cost-effective compromise

Cytotoxic agents: efficacy of Neoprene

POLYURETHANE

- Excellent mechanical properties (punctures, tears, abrasion)
- Highly resistant to ozone and UV rays

POLYURETHANE/CSM

- A glove that combines mechanical properties (polyurethane) with chemical resistance (CSM)
- Good resistance to chemical sterilizing agents (CSM side)

PIERCAN SPECIFICITY!

CSM/POLYURÉTHANE

- Excellent ability to withstand chemical products
- Good mechanical properties
- Highly resistant to ozone and UV rays
- Very good ability to withstand chemical sterilizing agents

PIERCAN SPECIFICITY!

LEAD-FREE LOADED POLYURETHANE

- Excellent protection from ionizing radiation (gamma and beta rays)
- High mechanical protections
- Highly resistant to ozone and UV rays

PIERCAN SPECIFICITY!

NATURAL RUBBER

- Excellent flexibility and dexterity
- Low cost

HIGH PERFORMANCE BUTYL

- Highly impermeable to liquids and gases
- Good ability to withstand chemical products
- Highly resistant to ozone and UV rays
- Good flexibility and dexterity
- Antistatic (compliant with European standard EN 16350-2014)

The **Manufacturing** processes

The PIERCAN process consists of dipping molds either in an aqueous medium (emulsion dipping) or with a suitable solvent (dissolution dipping), depending on the type of elastomer being used. Emulsion dipping is the technique used for neoprene and natural rubber and solution dipping is used for CSM, EPDM, the various types of Polyurethane and BHP. After the various stages of dipping, the gloves are then vulcanised in order to give them the desired mechanical properties.

TWO DIPPING TECHNIQUES:

EMULSION

DISSOLUTION

The **Production sites**

NORMANDY (FRANCE):

10 PRODUCTION LINES
7 000 M²

The Normandy site processes many elastomers to meet the needs of its customers. This is the group's headquarters and historic site since it was founded in 1976.

PARIS (FRANCE):

1 PRODUCTION LINE
2 000 M²

At the Paris site, PIERCAN manufactures and markets a range of flexible plastic products such as: isolator half-suits, sleeves, flexible wall isolators, bags, tunnel sleeves, sheaths, etc.

SAN DIEGO (USA):

4 PRODUCTION LINES
3 400 M²

PIERCAN's state USA site, founded in 1995, manufactures the same products as our headquarters and markets all products made by PIERCAN.

Exacting quality control for our gloves

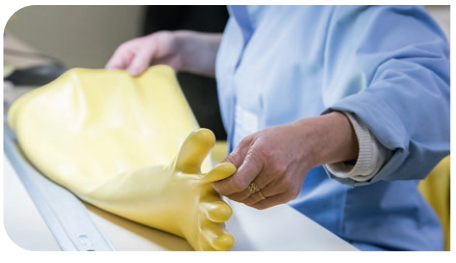
PIERCAN guarantees the quality of these products because they are subject to a quality control procedure consisting of a number of steps that remains very strict through the processes of design, manufacture, testing and dispatch, while complying with PPE regulations.

1. TESTING **ON RECEIPT**
- Raw materials
- Checking compliance with the specifications
- Tooling

2. TESTING **DURING PRODUCTION**
- Physical and chemical parameters tested by the quality control laboratory
- Dipping parameters tested by the operatives

3. **PROPERTIES OF THE GLOVE TESTED** BY AN EXTRENAL LABORATORY
- Checking that the gloves comply with the claims made

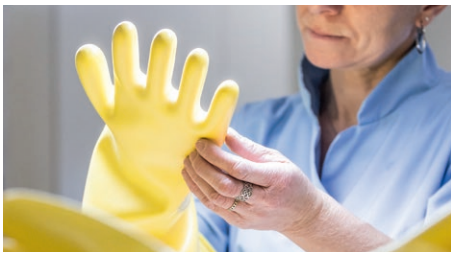
4. FINAL TESTING **OF THE GLOVE IN 6 STEPS:**



- **Length check:**
  Done by sampling, 1 glove per box. If the sample glove is non-compliant, testing is expanded and every glove is checked.

- **Beading check:**
  By sampling, 1 glove per box. At the mid-point between the sides and at the fold of the glove.

- **Thickness check:**
  By sampling, 1 glove per box. Thickness is measured in 5 places.



- **Visual inspection:**
  100% are checked. Each glove undergoes inspection to detect any visual imperfections.

- **Glove integrity testing:**
  100% are checked. Each glove is leak tested to standard EN 421 or AGS-G005-2014 7.2.1.2 Method B.

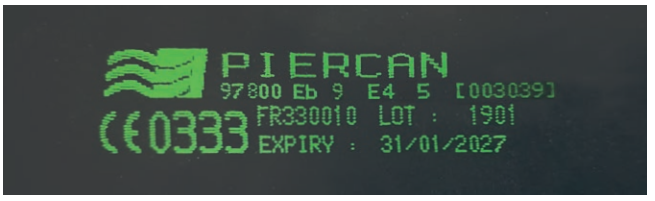
- **Marking:**
  This ensures the total traceability of the finished product, from raw materials to the inspector.

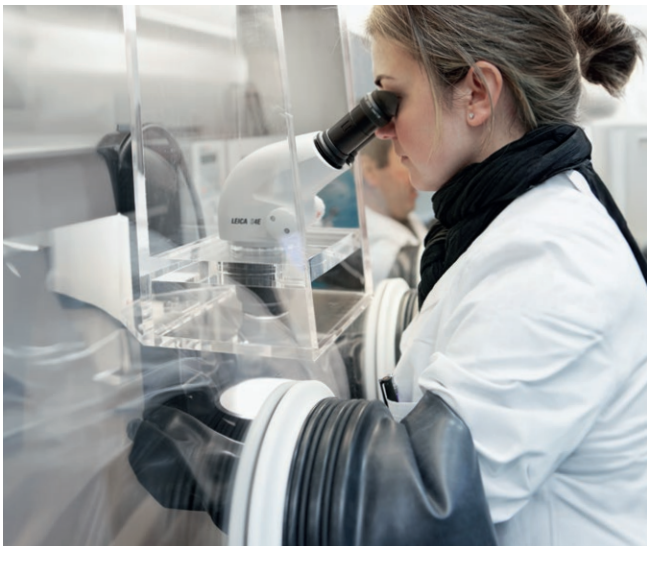
Standards

THE **CE STANDARD**

The framework of the CE legislation on PPE (Personal Protective Equipment) has changed a great deal over the past few years. The gloves sold by PIERCAN are compliant with the new European Regulation 2016/425, which came into force definitively in 2019.

PIERCAN gloves meet the following standards worldwide:
EN 420: general requirements for gloves
EN 374: chemical risks
EN 388: mechanical risks
EN 421: nuclear risks





THE **FDA STANDARD**

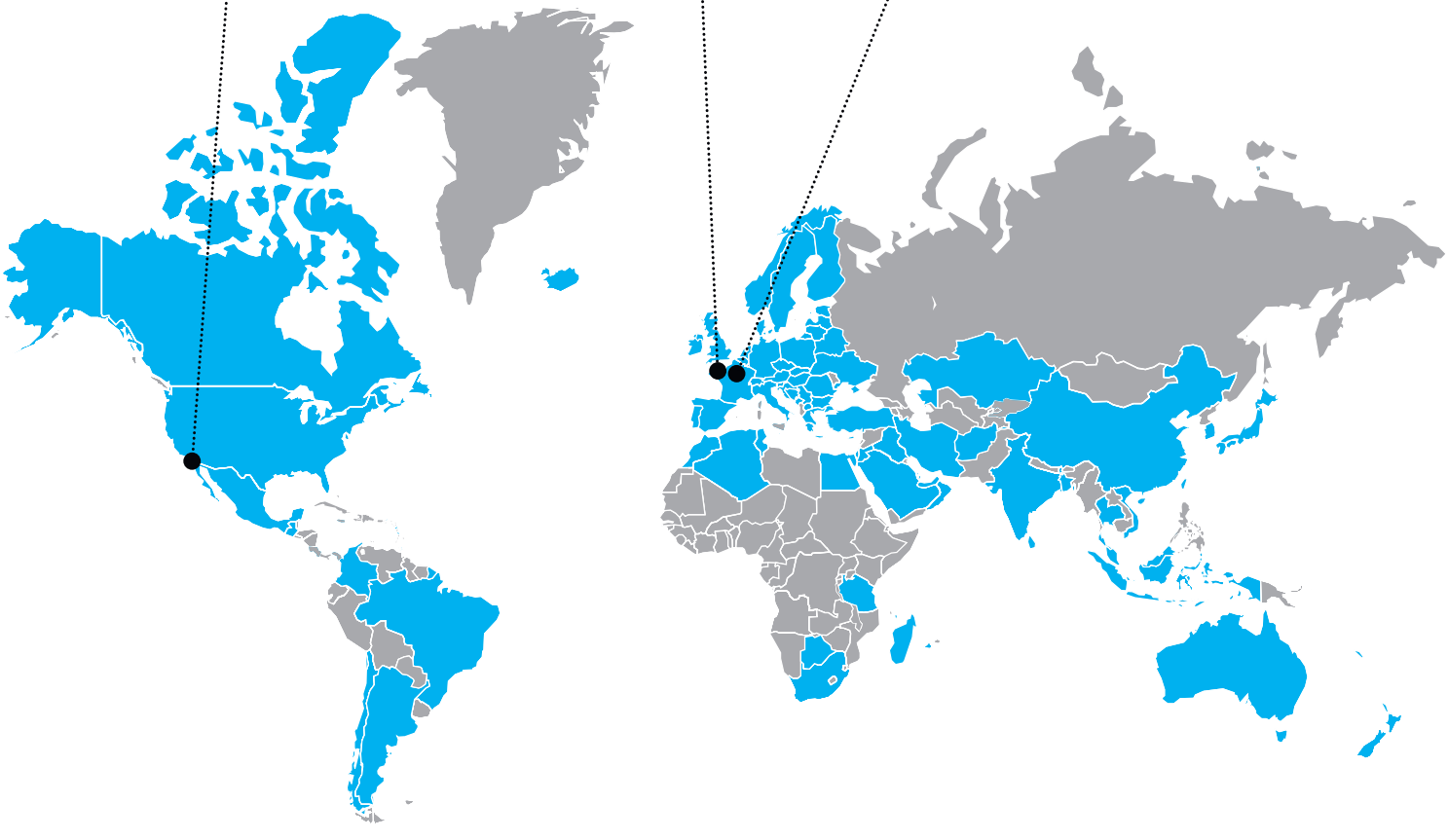
The latest development in the PIERCAN range is the EPDM glove. This is also the only PIERCAN glove with a composition that is compliant with the FDA positive list (§ 1772600, CFR 21).

Piercan around the world

Piercan USA Inc Office • Factory
San Diego
USA

Piercan Headquarter • Factory
Normandy
France

Piercan Commercial Management • Factory
Paris
France



Piercan products are sold in more than 50 countries

A QUESTION OR IN NEED OF INFORMATION?

Please do not hesitate to contact our sales team by phone or email.
Piercan's services and products are only one call away:

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PIERCAN