



# Isolator Gloves and Sleeves

Hands under **high security**





## Expertise that is renowned WORLDWIDE

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



**€39 M**

Annual revenues  
for the Piercan Group



**250**

Employees  
in France and in the USA



**3**

Production centres  
Normandy and Paris in France  
and San Diego in the USA



**50**

Countries buy  
PIERCAN products



**58 %**

of sales are in  
Pharmaceutical Sector



**25 %**

of sales are in  
Nuclear Sector



**1000**

customers  
worldwide



**2000**

Product  
References

### TWO MAJOR OPERATIONAL SECTORS



SECTOR 1  
**Pharmaceutical** industry

- **Usage of gloves:**  
To protect medicines from the outside environment and to protect operatives.



SECTOR 2  
**Nuclear** industry

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

PIERCAN is also present in the following industrial sectors: Hospitals, Research, Aerospace, Food industry, etc.



## INNOVATION, our response to a world in constant flux

*Understanding and, above all, anticipating the needs of our customers means that our R&D (Research and Development) and Innovation departments are able to offer solutions that are a perfect fit in terms of changes in the working environment and customer expectations. While the latest innovations involve safely and quickly changing gloves, PIERCAN is also very interested in improving glove traceability and researching new materials that perform more effectively.*



### 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<sub>2</sub>O<sub>2</sub> along with very good mechanical resistance and superb flexibility.



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

PIERCAN isolator gloves protect operatives 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

*PIERCAN offers a wide variety of gloves, Sleeves and ELS gloves. Most polymers are available in a one piece glove, 13" glove, and 24" sleeve.*



### 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/or sterilized gloves

*For over 10 years, PIERCAN has offered its customers decontaminated and/or 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)



## CSM/POLYURETHANE/CSM



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



## LEAD-FREE LOADED POLYURETHANE



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



## 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

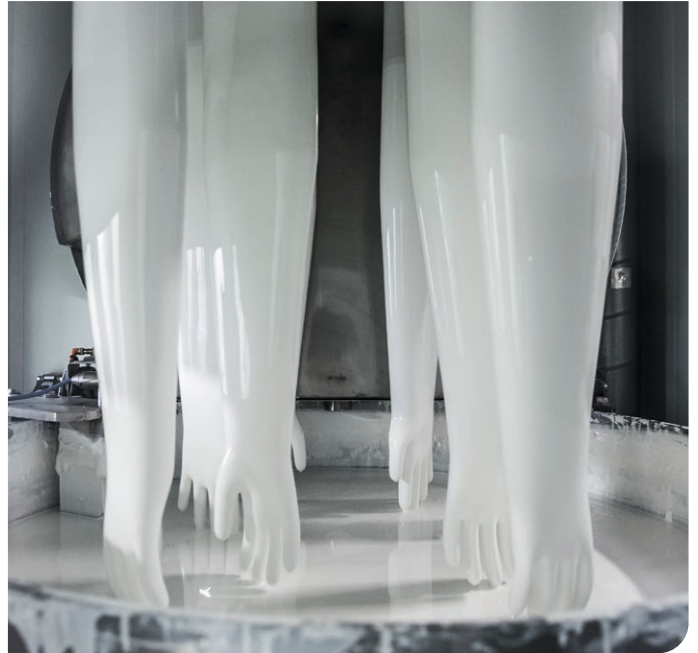
*The PIERCAN process consists of dipping moulds either in an aqueous medium (emulsion dipping) or with a suitable solvent (dissolution dipping), depending on the type of elastomer being used. Emulsion dipping is the technique used for neoprene and natural rubber and solution dipping is used for CSM, 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):**  
**159 STAFF**  
**9 PRODUCTION LINES**  
**6 000 M<sup>2</sup>**

The Normandy site processes many elastomers to meet the needs of its customers. This is the group's headquarters on which €3 million was invested in 2019 and 2020.



**PARIS (FRANCE):**  
**37 STAFF**  
**1 PRODUCTION LINE**  
**2 000 M<sup>2</sup>**

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):**  
**59 STAFF**  
**4 PRODUCTION LINES**  
**3 400 M<sup>2</sup>**

PIERCAN's US site, founded in 1995, manufactures the same products as our headquarters and markets all products made by PIERCAN. € 1 million was invested in 2020.

# 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**

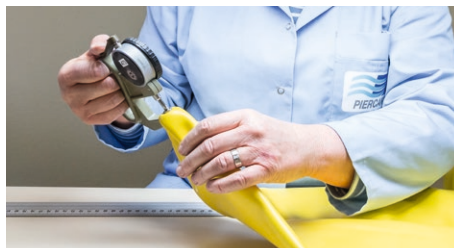
- Checking that the gloves comply with the claims made

## 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 under negative pressure in line with the standard EN 421.



### • **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, and permanently replaces Directive 89/686/EEC.

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

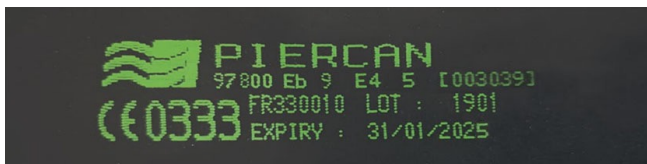
### ISO CERTIFICATIONS



PIERCAN has been ISO 9001 certified for a number of years. Quality is therefore a core concept at a Group level.



PIERCAN has been ISO 14001 certified since 2010. Rooted in sustainable development, the PIERCAN company is conscious of the environmental impact of its industrial operations and wishes to reduce these negative effects as far as possible.



### 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



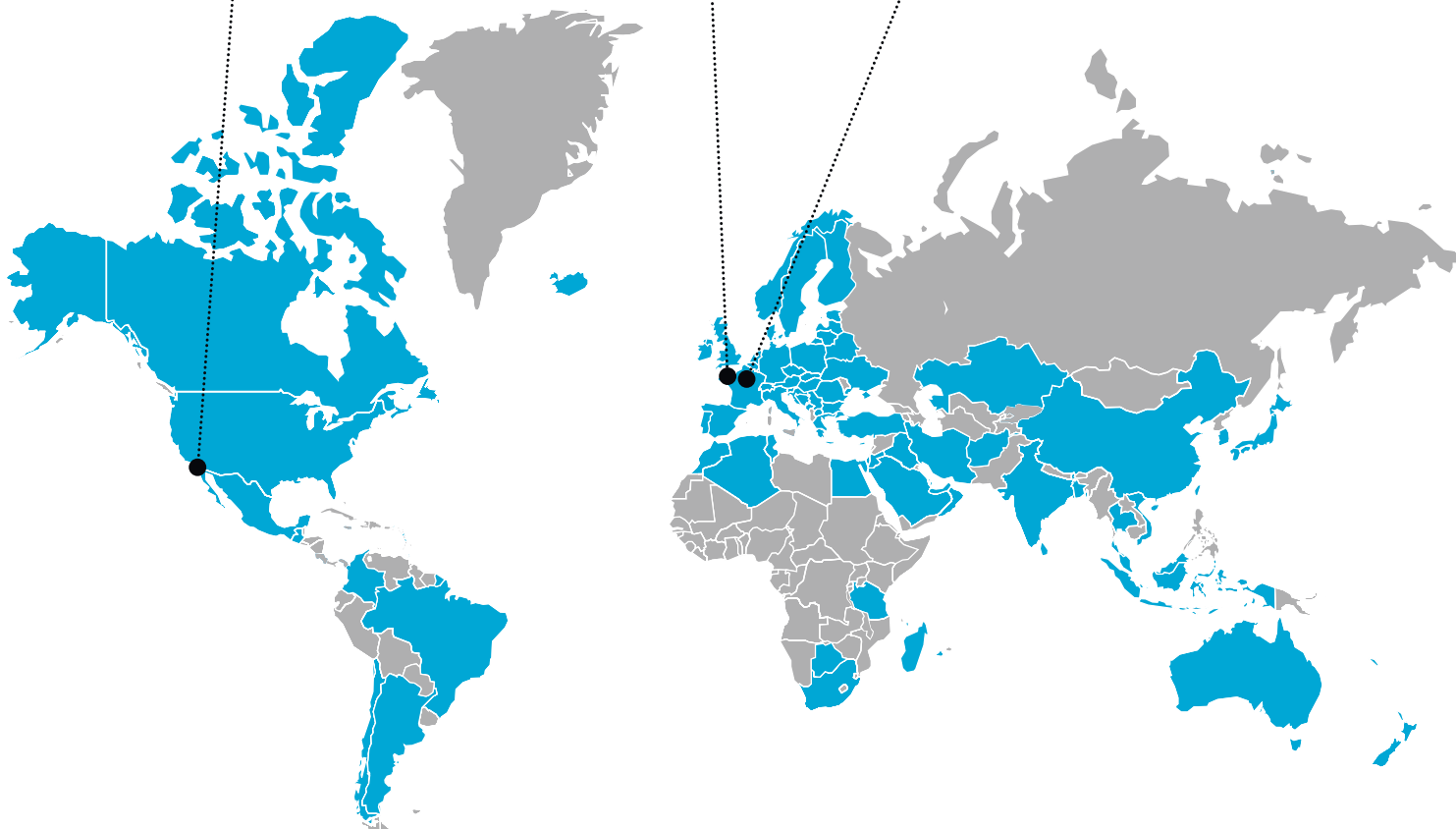
Piercan Headquarter • Factory  
**Normandy**

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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