

**Technology Centre**



Natural rubber extractable protein  
according to BSEN455-3 and ASTM5712

## UKAS approved independent mechanical, chemical and medical glove testing from Polyco

As one of the most technically advanced facilities of its kind in the UK, the Polyco Technology Centre offers an unrivalled breadth of experience and advice to the hand protection and related industries. Launched in 1999, the Centre provides over 30 UKAS accredited glove, cotton, clothing and plastic film related EN, ISO and ASTM tests on site - a range of testing that includes tensile strength; powder and protein content; cut resistance; hypodermic needle and standard needle puncture; chemical permeation and degradation. This is just a selection of the tests available.

As well as benefiting from comprehensive testing and complementary consultancy services, Polyco clients get great added value by drawing on the knowledge and innovation of a team of leading glove industry experts. All hold positions in key industry associations, among them the CEN European standards committees for industrial gloves, the BSIF and expert working groups within the EU.

**“Having worked with Polyco as providers of glove testing for the past two years, their helpful and knowledgeable staff have consistently exceeded our expectations for turnaround time and service.”**

Marc Gatén, PPE Certification Capability Leader at Intertek Consumer Goods

# UKAS accredited testing and analysis

Polyco laboratory facilities include state of the art equipment for the measurement of chemical and physical properties of materials and products, so enabling evaluation of products in accordance with the Medical Devices Directive 93/42/EEC and in particular, the EN455 series of medical glove standards, the PPE Directive 89/686/EEC and the Commission Regulation EU 10/2011 for food migration. The Technology Centre is an integral part of Polyco's Quality System which is certified to ISO 9001/ISO 13485 and is accredited to ISO 17025 by UKAS.

Listed here is just a sample of the tests that the Polyco Technology Centre can undertake on your behalf:

## EN455-1 Freedom from holes

This standard method measures the likelihood of pinhole being present in a delivery of gloves. Keeping the pinhole level low enables hospital staff to enjoy greater protection from infection and contamination.

## EN455-2 Force at break

In the clinical environment, gloves are exposed to many physical stresses. This standard test ensures that the strength of gloves is measured in a reproducible way and that all gloves meet minimum strength requirements.

## EN455-3 & ASTM 5712 Water soluble protein content

Natural rubber gloves contain proteins that can, in rare cases, lead to a serious allergic reaction. By measuring the protein levels of gloves and ensuring they remain low, we help to safeguard our customers and our clients' customers against potential harm.

## EN ISO 17075 Determination of chromium VI in leather gloves

During the leather tanning process, chromium III can be oxidised to chromium VI, which is a known carcinogen. By determining the chromium VI content in leather gloves we can ensure that levels are kept low.

## EN388 Protective gloves against mechanical risks

When gloves are used to operate machinery or in tasks in the construction, automotive, engineering or similar industries, it is important to protect against mechanical risks such as abrasion, cut, tear and puncture. Our testing allows non-minimal risk gloves to be marked with an EN388 score.

## EN1186-9 Migration into food simulants

When gloves are used for handling food products, it is essential to determine the amount of substances that may be transferred from the glove to the food. All gloves that carry the food safety pictogram are tested to ensure low migration levels and meet the requirements of the Food Contact Directive.

## EN374-3 Permeation

Many chemicals can dissolve in and travel through rubber without affecting its external appearance. Using this standard test method, we can determine the length of time a glove will provide protection against permeation.



Chemical permeation  
according to BSEN374-3

## Technical advice and tailored research

The Polyco Technology Centre serves clients in the medical, industrial and retail markets. Our vast experience and expertise means that we are uniquely placed to advise on the selection of gloves to protect against chemical threats such as those posed by aggressive cleaning agents, strong acids, solvents and more. In addition, the Polyco team has developed many in-house methods which probe further material properties that may not be covered by standardised methods.

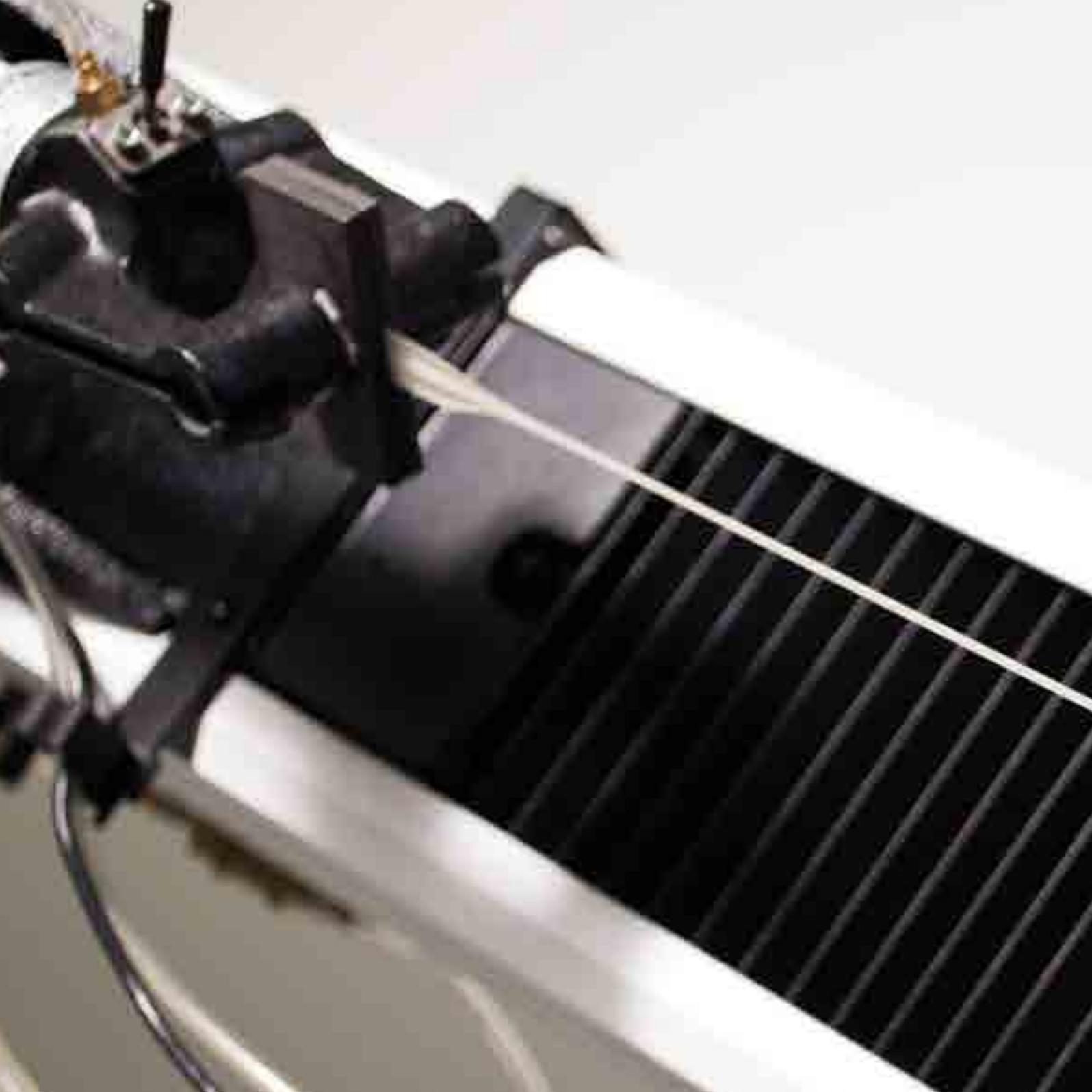
Gas chromatograph



A close-up photograph of a hypodermic needle being inserted into the barrel of a syringe. The needle is positioned diagonally across the frame. The syringe barrel is light-colored with a textured surface. Two large, black, star-shaped adjustment knobs are visible on the syringe. The background is dark and out of focus.

## Why choose Polyco laboratories for your testing needs?

- Quick and reliable turnaround times
- Consistently competitive pricing
- Guidance from the industry's top technical experts
- All-in-one laboratory services and support
- UKAS accreditation in place for over a decade
- Experienced and knowledge-rich team of scientists
- Long term client satisfaction



## Contributing to development of European glove standards

All our scientists are actively involved in the development of glove regulations and standards through our membership of the Personal Safety Manufacturers' Association (PSMA) and their participation in British and European Standards Committees via BSI and CEN. To this end, Polyco has been working closely with the Health and Safety Executive in developing guidance documents on glove use.

Our role in the development of European Standards allows us to assess the upcoming testing requirements for gloves and introduce the relevant tests several years before they are officially published. Such involvement ensures that we are always up to date. Globally, our participation in proficiency testing schemes contributes significantly towards the updating and enhancement of new industry standards.

We welcome the opportunity to put our skills and expertise to work for you.

Please call **+44 (0)20 8443 9090** or email the Polyco team at **[laboratory@polyco.co.uk](mailto:laboratory@polyco.co.uk)**.



Tensile strength  
tensometer

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