

medical reusable range

by Alsico group

In response to the current needs in the healthcare sector, Alsico group has put together a complete package of reusable, innovative and environmentally friendly medical clothing. We have integrated the current comfort expectations of medical staff. In order to provide optimum support to healthcare personnel and patients, we have designed a product range that complies with the European medical directive and guarantees optimal and correct operation.



Whoever markets medical products in Europe must comply with the Medical Device Directive 93/42/EEC, which will soon be replaced by Regulation (EU)2017/745 on Medical Devices. These are instruments, devices, substances, etc. that are used for diagnosis, prevention, monitoring or treatment of diseases or disabilities.

The necessary accessories and software are also subject to this legislation. It divides all medical devices into 4 different classes, each with their own obligations depending on the risks they pose to the human body. The higher the class, the higher the risk. Clothing used in an operating theatre falls under class I of this legislation. These products carry a CE label to show that they comply with the legislation. For class I materials this can be done through autocertification. The producer collects the necessary documentation to demonstrate that their product is in conformity, with the required traceability and a quality management system that provides a guarantee for each individual product. In order to demonstrate this conformity, we use harmonised standards, more specifically the EN13795 standard.

The EN13795 standard consists of 2 parts. The EN13795-1:2019 standard covers surgical gowns and drapes used within an OT and the EN13795-2:2019 standard covers clean air suits. These standards define both the requirements and the test methods. No distinction is made here between disposable or re-usable products. The requirements are the same.

EN13795-1: 2019

Surgical gowns and drapes

The surgical gowns and drapes (including for use as a sterile field) are applied to minimize the risk of infection of the surgical wound and consequently also to prevent the risk of postoperative infections. The requirements vary depending on the type of operation, the duration of the operation, the amount of fluid released, the mechanical stress on the material and the susceptibility of the patient to infection. For this reason, a distinction is made between ,high performance' and ,standard performance'.

High performance is often chosen when a surgery takes longer, more fluids are released or the patient is more susceptible to infection. In addition, requirements are going to be stricter for areas closer to the surgical wound: ,critical areas' (on the apron the front and forearms, for example) and ,non critical areas', further away from the surgical wound (e.g. the back). The latter is also a matter of comfort.

Surgical gowns are used to minimize the transfer of infection between patient and surgical team during surgery, both from team to patient and vice versa. To clarify: the surgical gown is not considered personal protective equipment as described in Regulation (EU) 2016/425.

What are the requirements for these products?

- / **Microbial Penetration :**
Penetration from one side of the material to the other by micro-organisms. Both in dry and in wet condition.
- / **Cleanliness microbial/Bioburden :**
the absence of a population of viable micro-organisms on a product and/or packaging
- / **Partial release (linting) :**
release of small particles of a fabric during mechanical stress (these may create a means of transport for micro-organisms)
- / **Liquid penetration :**
penetration of liquid from one side of the material to the other
- / **Bursting strength :**
burst strength of a material (the pressure a material can withstand)
- / **Tensile strength :**
tensile strength of a material (the force that can be applied until it tears)

EN13795-2: 2019

Clean air suits

Medical staff in the operating theatre will do everything possible to avoid any risks of post-operative infections. Various procedures are drawn up for this, both for the operation itself as well as for the utilized materials and work spaces. The air in an OT is monitored and should always be as clean as possible. In addition to checking air quality, it is also important to minimize contamination through clothing and skin particles from staff working in the OT. These particles (skin flakes as well as textile fibres) can create a means of transport for bacteria that find their way to the patient and can infect their wounds. To avoid this, the medical team wears surgical aprons in the sterile zone, but hygiene is not just important for the people within the sterile zone, but also in the surrounding area. For people in the OT outside the sterile zone it is best to choose a clean air suit. A clean air suit will prevent that skin particles from the wearer can enter the OT. One can also very well wear a clean air suit under a surgical apron. The conditions they must comply with are described in EN13795- 2. In addition to the requirements for the used material, design is also an important factor. All openings should be as tight as possible to the body: sleeve cuffs, bottoms of scrubs and trouser legs are hemmed with jersey fabric.



Isolation Gowns

Isolation gowns are mainly used to be worn over existing clothing. They are designed to prevent vulnerable patients from becoming contaminated. Also, the wearer is protected against communicable diseases from the patient. There are different performance levels, ranging from resistance to particles, aerosols and pressurized fluids. When referring to the protective properties for the wearer, use EN 14126 „Protective clothing - Performance requirements and test methods for protective clothing against infectious agents“ to demonstrate these. When referring to patient protection, the medical device directive applies and you can use EN13795. It is important for isolation gowns that the entire outfit is of the same class. There are no critical and non-critical zones here, everything is critical. From this point of view, overalls are very suitable, because they provide 360° protection, but donning and doffing is more cumbersome and slower than a gown.

01

clothing for nurses and surgeons in the operating room

Clean air suits

The suits can be worn as comfortable clothing in the hospital, but they can also be worn in the OT as standard clothing or as undergarments when used with a surgical gown. Made of PES filament, they greatly limit the spread of dust particles that can form a means of transport for viruses and/or bacteria.



Tunic Andreas

Unisex / XXS-XXXL / clean air tunic / V-neck / short sleeves with tricot ribbed hem / 1 chest pocket / 2 side pockets / tricot ribbed bottom hem / complies with EN 13795

99% PES/ 1% CA – 130 g/m²

- navy
- green

Trousers Rhus

Unisex / XS-XXL / clean air trousers / belt with bow ribbon and elastic in the back / large thigh pocket on the right / tricot ribbed hem at the bottom of trouser legs / complies with EN 13795

99% PES/ 1% CA – 130 g/m²

- navy
- green

Surgical jackets

OT jacket Steven

Standard Performance Operation jacket for procedures with little or no moisture involved.

Unisex / M-XL / Ultra-light standard OT jacket / Made of a light, water-repellent 100% micropolyester fabric / Long sleeves with tricot wrist bands / Lateral closure on the outside, adjustable at the neck and hip by means of ribbons / Complies with EN13795-1

99% PES/ 1% CA – 127 g/m²

■ green



OT jacket Brice

Standard Performance jacket for longer procedures with little or no moisture involved. The more air permeable back panel provides extra comfort.

Unisex / M-XL / OT jacket with high wearing comfort / Long sleeves with extra comfortable tricot cuffs/ Lateral closure with ribbons on the inside / Lateral closure with ribbons on the outside of the overlapping back panel / Adjustable at the back of the neck with press studs / Front panel and sleeves made of 100% micropolyester fabric with high water column / Back panel made of a light 100% micropolyester fabric for optimal air permeability / Conforms to EN13795-1

Front panel: 99% PES/ 1% CA - 145 g/m² /
Back panel: 99% PES/ 1% CA - 127 g/m²

■ green



OT jacket Milan

This longer high-performance jacket can be used for procedures with a higher risk of infection, where more fluids are released and mechanical stress is applied to the fabric (e.g. orthopaedic interventions).

Unisex / M-XL / High performance OT jacket for high risk and high fluid release operations / Round collar / Embedded tricot ribbing at the front of the collar with coloured size indication / Long sleeves with tricot cuffs and thumb loops / Lateral closure with ribbons on the inside / Lateral closure with ribbons on the outside of the overlapping back panel / Adjustable at the back of the neck with press studs / Front panel and sleeves made of 100% PES trilaminate fabric / Back panel made of a light 100% micro polyester fabric for optimal air permeability / Conforms to EN13795-1

Front panel: 100% trilaminate – 170 g/m²
Back panel: 99% PES/ 1% CA – 127 g/m²

■ green

02 clothing for nurses in hospitals and residential care centres

Head gear

These caps are worn to ensure optimal hygiene and to limit shedding of hair and/or skin flakes.

OT cap Cedric

Unisex / One size / With press studs on the back / Height = 11 cm / Conforms to EN13795-2

100% PES – 142 g/m²

- white
- light blue
- navy
- green



Washable hairnet Gaby

Unisex / One size / With embedded elastic band / Bouffant / Complies with EN13795-2

99% PES/ 1% CA – 93 g/m²

- white

Isolation coats

Isolation coats are worn over other clothing to avoid the transmission of microorganisms and to protect the clothing. They are used to protect vulnerable patients. Depending on the type of isolation (e.g. contact-, aerosol-, drip isolation), other measures may be necessary.



Isolation coat Finn

This isolation gown has good air permeability, but is not waterproof. Gown to knee height.

Unisex / M-XL / Round collar / Long sleeves with tricot cuffs / Closes at the back with press studs / Reversible

100% PES – 142 g/m²

light blue

navy

Isolation coat Tess

This isolation coat meets the requirements of EN13795-1 standard performance and as such creates a barrier in both dry and wet conditions, with a water column of at least 20 cm.

Unisex / M-XL / Round collar / Long sleeves with tricot cuffs / Closes at the back with ribbons / Reversible / Meets EN13795-1

99% PES/1% CA – 127 g/m²

green



Isolation coveralls



Cleanroom coverall **Lucas**

Unisex / XS-XXL / Upright collar with 2 press studs / Hidden front zipper / Long sleeves with tricot cuffs / Press-studs for name tag on left chest / 3 press-studs on the side of the legs to attach boots / Press-studs on the lower legs / Adjustable elastic band in the back / No pockets / Meets EN13795-2

98% PES/2% CA – 118 g/m²

- white
- light blue



Unisex cleanroom coverall **Levi**

Unisex / XS-XXL / Upright collar with 2 press studs / Dived front zip / Long sleeves with tricot cuffs / Press studs for name tag on left chest / 3 press studs on the side of the legs to attach boots / Tricot on the leg bottoms / Adjustable elastic band in the back / No pockets / Meets EN13795-2/

98% PES/2% CA – 118 g/m²

- white
- light blue



Mouth mask

Community Masks reduce infection risk for both wearer and others. Following the principle „I protect you, you protect me“, Community Masks should always be used in combination with other measures, but they have meanwhile proven their effectiveness.



Mouth mask Comfort

Unisex / One size / With cord lock and nose bridge / User-friendly design / Approved as a community mask by Centexbel / Meets NBN-DTDS S 65-001:2020 standard

100% PES – 142 g/m²

- white
- light blue
- navy
- green
- dark grey



Mouth mask Easy

Unisex / with adjustable ear loops / nose bridge / user-friendly design / Complies with test AFNOR SPEC S76-001

65% PES/35% CO – 142 g/m²

- black
- white
- dark red
- dark green
- dark grey

Sizes: Kids, S, M, L



Socks

These socks are specially designed to reduce the release of small particles, which can become a means of transport for microorganisms.



Cleanroom sock thin

Unisex / One size / Tube sock / Packed per 20 pairs / With light blue Alsico logo / 167 DEN/48 filament, 100% Polyester

97% PES/ 3% Elastane

white

Cleanroom sock thick

Unisex / One size / Tube sock / Packed per 20 pairs / With red Alsico logo / 150 DEN/288 filament, 100% Polyester

97% PES/ 3% Elastane

white



Shoe covers

These shoe covers are used to avoid contact with your own footwear in certain spaces. (isolation effect)

Shoe cover Gerard

Unisex / S-XXL / With embedded elastic band at the top / PVC sole / Meets EN13795-2

100% PES – 142 g/m²

white
 light blue
 navy
 green



Tunics

ese tunics are the daily workwear of our care providers. Which is why we incorporate comfort and ease of use by adding a number of practical features such as A-move and pockets for scissors, phones more.

Tunic Iris

Ladies tunic / XS-XXL / fitted / shirt collar / white press studs closure / 2 chest pockets / side pockets with extra phone pocket

65% PES/35% CO – 210 g/m²

white



Tunic Eric

Unisex tunic / XXS-XXXL / stand-up collar / white press studs closure - / small side slits - pocket creases / 1 chest pocket

65% PES/35% CO – 210 g/m²

white

Tunic Arjuna

Ladies / XS-XXL / Centred / Short sleeves
/ Stylized collar in moderate V-shape /
Dipped press stud front / 1 chest pocket
with integrated pen pocket /
2 integrated side pockets, one with
phone pocket and scissors pocket /
A-move for extra comfort

65% PES/35% CO – 210 g/m²

 white with colour detail in navy
and sky blue



A-Move

The A-Move is as simple as it is ingenious. The crease on the shoulders provides that extra comfort of movement that can make all the difference during a demanding work day.

The A-Move ensures that back and arms can move freely. Also in case of fast activities or heavy exertion. A-Move is a technical innovation in clothing. No additional fabric or material is required. This is performance-based eco design made in Ronse.



Tunic Arjuno

Unisex / XS-XXL / Short sleeves /
Stylized collar in moderate V-shape /
Dipped press stud front / 1 chest
pocket with integrated pen pocket /
2 integrated side pockets, one with
phone pocket and scissors pocket /
A-move for extra comfort

65% PES/35% CO – 210 g/m²


 white with colour detail in navy
and sky blue

Polo tunic Sanne

Ladies / XS-XXL / Centered / Short sleeves / Rounded, designed collar / Closed press-studs on collar / Main fabric in tricot with side panels in woven fabric / 2 side pockets / 1 phone pocket / 1 pen pocket

36% lyocell/ 64% PES – 190 g/m²

50% lyocell/ 50% PES – 195 g/m²

 white with colour detail in blue shadow

 sky blue with colour detail in blue shadow




Polo tunic Sander

Unisex / XS-XXL / Short sleeves / Rounded design collar / Closed press-studs on collar / Main fabric in tricot with side panels in woven fabric / 2 side pockets / 1 phone pocket / 1 pen pocket

36% lyocell/ 64% PES – 190 g/m²

50% lyocell/ 50% PES – 195 g/m²

 white with colour detail in blue shadow

 sky blue with colour detail in blue shadow

Trousers

Trousers Arthur

Unisex trousers / XXS-XXL / Fly with press studs / Belt loops / Adjustable waistband / Functional thigh pocket / 2 side pockets and 1 back pocket with press studs / Roll-up trouser legs with press stud fastening

65% PES/35% CO – 210 g/m²

- white
- night blue



Trousers Beau

Unisex trousers / XXS-XXXL / Fly with press studs / Belt loops / Adjustable waistband / Functional thigh pocket / 2 side pockets and 1 back pocket with press studs / Roll-up trouser legs with press stud fastening

50% PES/ 50% Lyocell – 215 g/m²

- white
- night blue



Trousers Kim

Unisex / XXS-XXL / Slimfit and stretch / Waistband closing with jeans button and with fitting straps / Fly with press studs / Belt loops / Adjustable waistband / Functional thigh pocket / 2 side pockets and 1 back pocket with press studs / Roll-up trouser legs with press stud fastening

64% PES/ 34% CO/ 2% EOL – 245 g/m²

- white
- night blue

Knitwear

T-shirt Sun

Unisex / XXS-XXXXL / Round rib collar / Slim fit / Short sleeves

50% PES/ 50% CO – 210 g/m²

white

navy



Polo Alouis

Unisex / XXS-XXXXL / Polo rib collar / Closes with buttons / Slim fit / Short sleeves with ribbing

50% PES/ 50% CO – 220 g/m²

white

navy

Sweater Coast

Unisex / XXS-XXXXL / Round rib collar / Long sleeves with rib cuffs / Rib waist

50% PES/ 50% CO – Brushed – 310 g/m²

white

navy



03 Clothing for doctors

Doctor's coat **Artemis**

Unisex / XXS-XXXL / Short sleeves /
Lapel collar / Press studs / Backsplit /
Martingale / 1 chest pocket / 2 side
pockets with extra phone pocket

65% PES/35% CO – 210 g/m²

white



Doctor's coat **Aster**

Unisex / XXS-XXXL / Long sleeves /
Lapel collar / Press studs / Backsplit /
Martingale / 1 chest pocket / 2 side
pockets with extra phone pocket

65% PES/35% CO – 210 g/m²

white

Doctor's coat **Salvia**

Ladies / 39-56 / Fitted / Long sleeves /
Lapel collar / Press studs / Backsplit /
Martingale / 1 chest pocket / 2 side
pockets with extra phone pocket

65% PES/35% CO – 210 g/m²

white



ISO 15797

Our tunics, trousers and doctor's coats can be cleaned according to the industrial laundry processes as described in the EN ISO 15797. This standard describes the industrial washing and post-treatment processes that serve as a basis for testing dimensional stability, colour fastness, wrinkles, ...

Why you should opt for reusable protective clothing...

At a time when we need to care for our natural resources as much as we care for our people, our reusable protective clothing offers a safe, high-quality, comfortable, cost-effective and sustainable alternative to the disposable products on the market.



66% reduction in greenhouse gases

Comfortable?

Comfort is a physiological requirement of EN 13975. A surgical gown or drape that offers sufficient physiological comfort will benefit the patient as well. Wearing comfort is measured according to the EN 31092 standard (skin model) by calculating the water vapour transmission resistance $R_{e,t}$.³ Our medical clothing is made of polyester fabrics and was developed in long-term collaboration with medical professionals. It meets the standards imposed by EN 13975 throughout its life cycle.^{1,2}

Safe?

All our medical products meet the EN 13795 standard. This harmonised standard under the EU Medical Devices Directive combines up-to-date knowledge on infection control and sets minimum requirements for barrier performance, cleanliness and robustness.^{1,2}

High quality?

Reusable products must comply with these standards throughout their „life cycle“ - in other words: not just when they are new. Life cycle tests are carried out for each property - whether this is microbial resistance, liquid penetration, robustness, etc. As a result, reusable products generally outperform the performance guaranteed by means of the standard. While some studies have revealed inconsistencies in disposable products, reusable products in the same studies have shown lower variations and proved to be of superior quality.



84% less waste

Sustainable?

Between 1993 and 2020, as many as seven life cycle studies compared reusable vs. disposable surgical textiles. They all pointed to a significantly lower environmental impact of reusable gowns and covers. The most recent study compared the environmental impact of 1000 uses. The impact calculation includes production, delivery as well as recycling after end of life of 1000 single-use aprons and 16.7 reusable gown (i.e. 60 times washing, sterilizing and relevant transportation of each gown). The choice of reusable coats reduced energy consumption (by 64%), greenhouse gas emissions (by 66%), water consumption (by 83%) and solid waste generation (by a whopping 84%) over their entire life cycle.

¹ ETSA, 'HIGH-TECH SURGICAL GOWNS AND DRAPES - SAFETY, COMFORT, SUSTAINABILITY AND COST-EFFECTIVENESS', presentation, (2016); Retrieved from <http://www.pluritex.it/upload/etsa-hightechsurgicalgownsdrapes.pdf> on July 8th, 2020.

² Idem, ibidem

³ Vozzola, E., Overcash, M., & Griffing, E. (2020). An Environmental Analysis of Reusable and Disposable Surgical Gowns. *AORN Journal*, 111(3), 315-325. <https://doi.org/10.1002/aorn.12885>



84% less consumption of 'blue water'

Cost-effective?

Comparison of cost-effectiveness should be based on the complete life-cycle costs of both reusable and disposable clothing. That is, all costs from cradle to end of life, including external costs such as greenhouse gas emissions and water consumption, must be included. If we include aforementioned advantages in the comparison, it becomes abundantly clear that reusable is the better choice even when it comes to cost-effectiveness.⁴



64% energy consumption

Property	Reusable	Disposable
Barrier effect	Guaranteed/tested over complete life cycle	Guaranteed for single use
Cleanliness	Guaranteed/tested over complete life cycle	No data available
Particle emission	Guaranteed/tested over complete life cycle	Variations
Robustness	Guaranteed/tested over complete life cycle	Variations
Heat management	Guaranteed/tested over complete life cycle	Variations
Comfort/breathability	Guaranteed/tested over complete life cycle	Variations
The use of primary energy sources	64% less	64% more
Greenhouse gas emissions	66% less	66% more
"Blue water" consumption	84% less	84% more
Waste	84% less	84% more
Cost effectiveness	Lower life cycle cost	Higher life cycle cost

⁴ McGain, F., Story, D., Lim, T., & McAlister, S. (2017). Financial and environmental costs of reusable and single-use anaesthetic equipment. *British Journal of Anaesthesia*, 118(6), 862-869. <https://doi.org/10.1093/bja/aex098>

Sustainable development by Alsico

Durable, circular workwear

As a company, Alsico wants to contribute to an economy that stays within the ecological limits of our planet and guarantees social as well as labour rights throughout the entire supply chain. We accept this responsibility by implementing a consistent policy of impact management: we measure our impact, we report on it and we take actions to reduce potential negative impact while at the same time taking steps to increase our positive impact. All this within the framework of the UN Sustainable Development Goals.



SDG 3 Health and Wellbeing SDG 8 Decent work and economic growth

Alsico produces its clothing in production units it owns. As a result, we have maximum control over work conditions and remain 100% responsible. Through internal social compliance checks, we ensure that the eight fundamental ILO conventions and all applicable social, environmental and labour rights are respected. Additionally, each of the units can submit a valid audit report from a third party (BSCI amphora, Sedex, Oekotex Step). However, our policy goes beyond basic rights and offers medical check-ups, free flu vaccinations, a contribution to school enrolment fees and the vacations of our employees' children.

To ensure decent work conditions further down the supply chain, we only work with suppliers who have signed our Supplier Code of Conduct. By signing, suppliers commit to the same high standards of environmental, labour and human rights as we do.

Also, Alsico actively manages the social and environmental risks in our supply chain through a human rights study that is continuously being reviewed and expanded. For each product, the origin of raw materials and their possible social and ecological impact can be traced. Risks are addressed in our yearly action plan (<https://www.textilbuendnis.com/alsico-nv/>). Full reporting available at: <http://database.globalreporting.org/reports/63161/>



SDG 12 Sustainable production and consumption.

Alsico increasingly works with a circular business model. Our performance-based ecodesign enables us to perfectly tailor our clothing to the safety needs and comfort demands of wearers, while avoiding waste and non-repairables. Clothing that is no longer wearable, we collect for recycling into insulating or composite materials (tables, benches).



SDG 13 Climate action

Alsico offers workwear that is climate-neutral. After determining our carbon footprint in 2017, we have set up 10 projects to reduce our emissions by 30% by 2021. The projects are driven by a team of volunteers. The CO2 footprint measurement of 2019 showed that we have succeeded in reducing total CO2 emissions by 10% thus far. We offset the current emissions from our production (including transport) through a reforestation project in Madagascar. Alsico has its own tree nursery where the local population is given information about the importance of ecosystems. Locals can receive fruit trees as an alternative to the arable farming that has caused massive deforestation and erosion in recent decades. Alsico has planted more than 100,000 trees since 2018. Customers can offset the remaining raw material emissions by buying additional trees at a rate of 1 tree per 5 garments.

Certificates and references about sustainability:



ISO 14001

Environmental management system; a set of processes that monitor the direct impact on the environment; embedded in a system of continuous improvement.



Ecovadis Gold status

External evaluation of our sustainability policy - our Gold status means that we are one of the 5% best-performing companies in terms of corporate social responsibility.



CO2-Neutraal

Our production (including all transport) is CO2-neutral. Customers are offered the possibility to offset the CO2 emissions from the raw materials.



UN Global Compact

We are an active member of the UN Global Compact, the world's largest corporate social responsibility initiative. Watch our Communication on Progress at: <https://www.unglobalcompact.org/what-is-gc/participants/124561#cop>



BSCI/Amfori

Our sewing ateliers have a social audit report from BSCI/Amfori. Since we own our ateliers, we go a step beyond the basic rights and pursue our own social HR policy.




Fairtrade

We have a certificate for trading Fairtrade goods and we have sewing ateliers certified to make Fairtrade labelled clothing.

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