

PRO-CATALOG

DEFENCE

WORK



ANYWHERE UNDERWEAR



ANYWHERE UNDERWEAR



FUNCTIONAL CLOTHING FOR THE PROFESSIONAL MARKET

ANYWHERE UNDERWEAR

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ANYWHERE UNDERWEAR



BASELAYER AND MIDLAYER FOR PROFESSIONALS

SOLDIERS, FIREFIGHTERS AND
POLICE OFFICERS

ACLIMA AS in Norway delivers functional underwear to several NATO countries. The wide experience and knowledge ACLIMA has gained

through generations, is an invaluable advantage in our continuous effort to keep professionals warm and dry. We know the needs that emanate from our climate

and do our utmost to fulfill these needs. Our long-life products from ACLIMA have always been recognized with high quality.

In close co-operation with the Norwegian Army, ACLIMA has designed the soldier's Flame Resistant, insulating and breathable underwear. ACLIMA has also developed terry wool underwear and the well-known Classic Fieldshirt in terry cotton. Net underwear has been rising in popularity due to the qualities of sweat transport (wicking), insulation and light

weight, providing superior comfort and ease of movement. Several types of FR options; wool or synthetic, are developed in close co-operation with our clients.

Today, ACLIMA delivers functional underwear to several armed forces in NATO countries, including NSPA; NATO's own support agency.

ACLIMA primary focus is on the development and production of high quality underwear. This is the reason why professional buyers trust ACLIMA as specialists that understand specific solutions for a wide variety of climates, situations and needs.

THE KNOW-HOW INHERENT IN ACLIMA MAKES OUR PRODUCTS SUPERIOR

Rita Le Bruyn Johansen,
Head of Military Sales



ACLIMA - A NORWEGIAN TEXTILE HISTORY

ANYWHERE UNDERWEAR

ACLIMA has been led by the Johansen family since the beginning, and we have taken part in the Norwegian textile history. A solid and reliable company which can be trusted.

ACLIMA employs several textile experts. Theoretical background combined with long experience gives superb know-how in the field of developing and manufacturing underwear.

ACLIMA is always looking for better solutions. Fabric innovations and new functional garment details are often presented. Aclima is always in front when we speak function and quality.

ACLIMA is an underwear specialist. Focusing on a small market segment makes it possible for us to be top of the class. Our main force is Net construction and circular knitted fabric.

HIGHLIGHTS - FROM 1939

TUNA TEKSTIL

ACLIMA has its origin from Tuna Tekstil. Experience and knowledge, through generations, are the main reasons that we today are a proud supplier to both the professional and the private market.

FOUNDER

In 1939 our founder, Eivind Johansen, started production of woolen soles. There was great demand after the war, and eventually the assortment developed to include sweaters and training suits for the local market.

THE FIRST DELIVERY OF FIELD-SHIRTS

to the Armed Forces, was in the 1960s. In the 1970s Tuna Tekstil's production expanded further, focusing on underwear. Tuna field-shirts became a familiar term for all personnel in the Norwegian Armed Forces, and the retail market.

SECOND GENERATION JAN EIVIND JOHANSEN

enters the company. The expansion continues with deliveries of field-shirts to the Civil Defence, Ministry of Defence - UK, and to the Police.

1939

1960

1975



JAN EIVIND JOHANSEN
Textile engineer and
second generation
owner of ACLIMA AS

THE ACLIMA TEXTILE STORY started near to the mountains of Norefjell, where the Norwegian nature and extreme weather gave inspiration to produce comfortable and warm clothing.



IMAGE: EIRIK ASPAAS

THE START OF THE WOOL UNDERWEAR ADVENTURE

In 1990 the wool adventure started, and the Norwegian Army was the biggest customer. Focus is on branding and customized development of underwear, to the Armed Forces in several countries.

1990

NEW FACTORY IN ESTONIA

Our fully owned company Aclima Baltic AS was established in 1999, following a few years of external CMT production in the Baltic states.

1999

CUSTOMIZED PRODUCTION

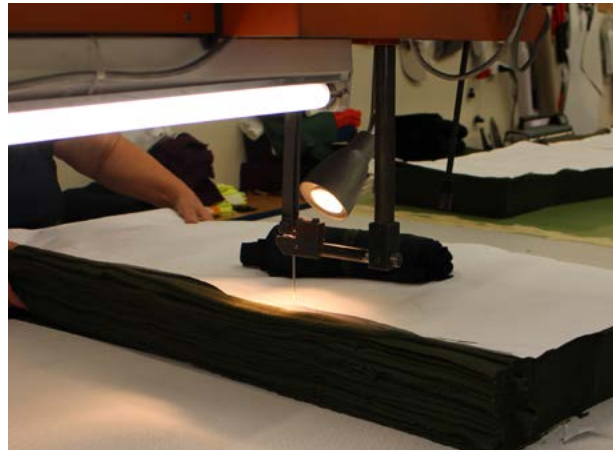
Growth continues and 3rd generation, Lars Eivind Johansen, enters the company. ACLIMA has since 2000 delivered customized underwear for the Norwegian, Swedish, Danish, Belgian and Estonian Armed Forces. Read more about us in this brochure.

2000

NEW HQ IN DRAMMEN

Aclima AS moved into our existing premises downtown Drammen, Elvegården. The building is owned by the Aclima group.

2016



PURCHASING ACLIMA GARMENTS

ACLIMA has won several tenders in Norway, Sweden, Belgium and through NSPA/NATO. We have a skilled team to take care of tenders, and can handle large volume orders.

Our production is located in Northern Europe. The location in Northern Europe allow us to follow all the steps in the production line very closely.

Off the shelves, for tests, urgent needs and smaller quantities. ACLIMA has a lot of products in stock that would fit into the normal need for baselayer and midlayer for professionals.

PRODUCT DEVELOPMENT AND CUSTOMISATION

User properties and safety is our priority when designing new underwear. The co-operation with the Police, Firebrigade and the Army has been one of the success factors, as the discussions along development line are crucial. Also the testing and feedback in order to get the best solutions, is invaluable. It allows us to make big scale user tests, with a professional and quick feedback. Many garments are made as a result of a small idea from our customers.

ACLIMA is constantly searching for new fibers that increase the safety and user friendliness of our garments.

Not only user friendliness, but also environmental awareness is a part of the development. ACLIMA has all the knowhow needed to develop good products.

The fact that women have entered the armies, as well as the police, is a challenge ACLIMA has taken seriously. A woman dressed in clothing designed for men, will struggle more than her male colleague. Most garments are now also made in woman sizes and styles.

ACLIMA has also equipped several expeditions going to the South and North Pole, Greenland or Seven Summit climbers. They do not bring too much extra clothing for the weeks or months they spend on the trip. These groups gives us important feedback from the expeditions.



NS-EN ISO 9001:2008

HOW TO DRESS - THE MULTI LAYER PRINCIPLE

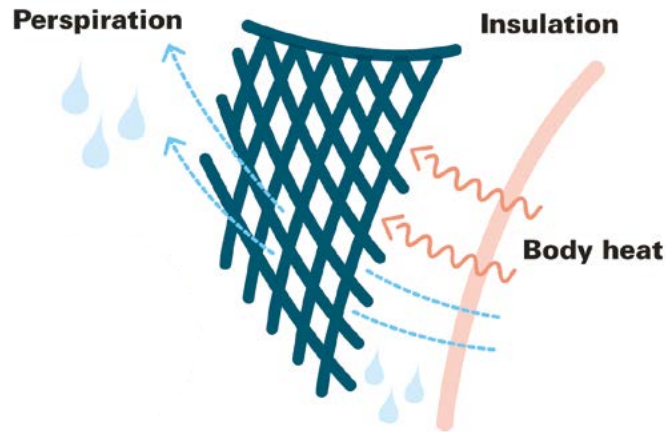


IMAGE: SCANOUT

- 1 BEANIE**
100% Merino Wool
- 2 BALACLAVA**
100% Merino Wool
- 3 BOXER SHORTS**
100% Merino Wool
- 4 FR NET**
85% Rhovyl, 15% Modal
- 5 FR TERRY**
70% Merino Wool,
30% Modacrylic
- 6 SOCKS**
65% Merino Wool,
33% Polyamide, 2% Elastane



MESH TECHNICAL FUNCTION



MOISTURE MANAGEMENT AND INSULATION

Clothing can't provide 100% protection from the effects of the cold. It is the body that produces the heat, not the clothing itself. The air layers in- and between individual garments are what is heated by the body's surplus heat.

When you work or exercise and start to get warm, the heat will make a higher pressure close to your body than to the

surroundings. If the warm air escapes, your skin will feel dry. If it has no possibility to escape, it will condense and turn into moisture.

Of course the hot air with high pressure will travel faster through a garment with a lot of holes, than a very dense fabric. This is why ACLIMA recommends a net constructed garment as the base

layer. When you have equalized the high pressure to the surrounding pressure, all the holes in the net will act as a reservoir for the warm air.

The purpose of clothing is to ensure that the proper body temperature is maintained according to the intensity of the work that is being carried out.



ATHRUSTWORTHY PARTNER

ARMY PRODUCTS



REFERENCE LIST FROM OUR CUSTOMERS

The Norwegian Army

ACLIMA AS has delivered underwear to the Norwegian Army since 1969. The army is very satisfied with the service and the products. Also the fact that Aclima has the knowhow to develop new products and add better qualities to existing products, is important for the users.

The Norwegian Police

ACLIMA AS is currently supplying the Norwegian police with different garments of underwear. We have had the pleasure of supplying the police with garments over several years.

Norwegian Civil Defence

ACLIMA AS has delivered underwear to the Norwegian Civil Defence for many years, and still do. "It is important that the quality and the deliveries is to our expectation, and that we can be sure of further developments if needed."

Denmark, The Danish Forces

ACLIMA AS is now supplying the Danish soldiers with warm underwear. The deliveries started late 2015 and will be in use from early 2016. The same underwear is also used by the Norwegian Army.

The Swedish Defence

ACLIMA AS has delivered underwear to the Swedish Defence since 2003. "It is an important aspect that the service and the products are as expected. We also value Aclima's willingness to develop and search for the newest and best fibers."

The Belgian Army

ACLIMA's contract with the Belgian Army resulted in a delivery of NET-SHIRTS 12ST222 from 2012 to 2015.

Estonian Army

"ACLIMA AS has always been a good and trustworthy partner. Aclima has always delivered on time and with quality that has satisfied our needs fully."

NET UNDERWEAR

Net construction

Provides unique moisture wicking abilities.

Excellent ventilation

Ventilates in all kinds of activity.

Good Insulation

Insulates during inactivity because of the heated air close to your skin.

Always dry

You will be surprised how fast this baselayer dries.

Reinforced details

Rib knitted details on exposed areas, for extra comfort, elasticity and long durability.

Light and Comfortable

Flat seams provides the user a feeling of comfort.

.....
 EXAMPLE OF NET UNDERWEAR:
 Composition: 85% Rhovyl, 15% Modal

FABRIC WEIGHT

115g/m²

.....



T-SHIRT



LONGS



CREW NECK

TERRYWOOL

Best protection

First choice by people with extensive work outdoors.

Combine with baselayer for additional insulation

Captures moisture from the base layer, while insulating against cold.

Excellent Insulation

Owing to the loops inside of the fabric that holds a great amount of air.

Wool Blend

Wool mixed with other fibers, makes the garment warm, thick and more durable.

Always warm

Wool garments have very good insulation characteristics, even when wet.

Flame Resistant

Wool itself is naturally Flame Resistant.

.....
EXAMPLE OF TERRYWOOL UNDERWEAR:

Composition: 70% Merino Wool,
30% Modacrylic

FABRIC WEIGHT

220g/m²

.....



POLO W/ZIP



LONGS



ARMY PRODUCTS





A photograph of firefighters in orange gear and helmets, viewed from behind, as they battle a large, intense fire. A powerful stream of water is being sprayed from a hose onto the flames, creating a misty spray. The scene is set outdoors, with a body of water in the foreground. The text 'WORK PRODUCTS' is overlaid in large, white, bold, sans-serif font across the center of the image.

WORK PRODUCTS

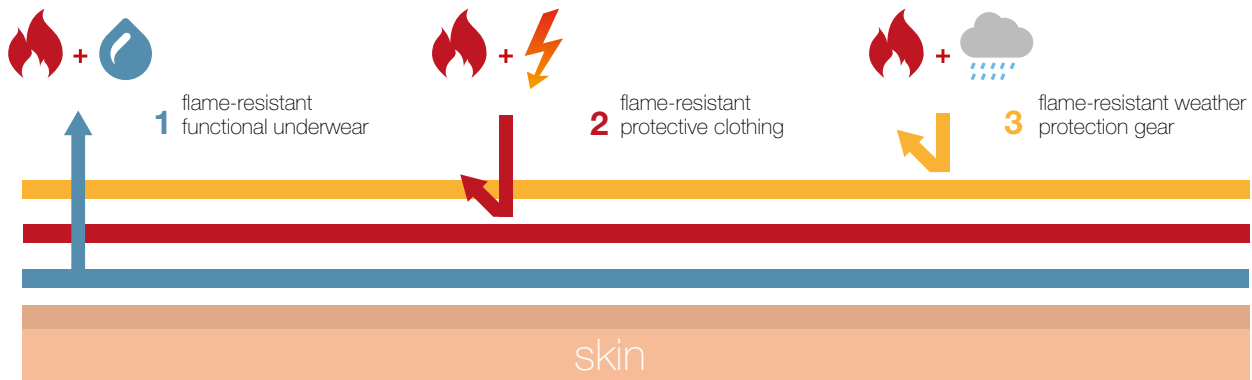


Figure: © Lenzing AG

FLAME RESISTANT LAYERS (FR)

is achieved in a number of ways: Using inherently flame resistant fibres, modifying fibres for flame resistance, finishing the fabric to enhance flame resistance, and modifying fabric structure.

THE FIBERS USED by ACLIMA is made of a natural raw material. It has a flame resistant substance

incorporated throughout the cross-section of the fiber, which ensures inherent flame resistance. The protective substance cannot be removed by washing nor abrasion.

WOOL IS NATURALLY FLAME RESISTANT. The flame resistant attributes include a very high ignition temperature of 570-600°C,

and has a high Limited Oxygen Index (LOI). When wool is blended with different FR fibres this will enhance the wool's already natural flame resistance, and will meet the high requirements of the ISO standards.

IN ADDITION, ACLIMA makes flame resistant garments with other compositions.

SAFENET

75% Lenzing FR, 15% Para-aramid, 10% Polyamide. Net with rib details. Lightweight, soft, breathable, flexible and durable. Combine with Aclima X-Safe for the best protection provided by underwear.

.....
KEY CHARACTERISTICS

FABRIC WEIGHT
120g/m²
.....



LOI Value 28



CREW NECK



LONGS

X-SAFE

74% Lenzing FR, 15% Para-aramid, 10% Polyamide, 1% No-Shock. Rib Knitted. Due to moisture management properties of the Lenzing FR fiber, body cooling is supported, resulting in the highest physiological performance.

X-Safe is certified according to the EU standard EN ISO 11612:2008 A1+B1+C1+F1 EN 1149:2008, EN 61482-1-2:2007 Class 1

.....
KEY CHARACTERISTICS

FABRIC WEIGHT
200g/m²
.....



FIREHOOD
EN 13911:2004
EN 1149:2008
EN 61482-1-2:2007
CLASS 1



MOCK NECK



CREW NECK



LONGS



T-SHIRT



SHORTS

X-WARM FR

70% Merino Wool, 30% Modacrylic, Terry knitted. The mix of merino wool and modacrylic makes the garment Flame Resistant, thick and very durable. The loops on the inside help maintain a steady body temperature when working outside during the coldest days.

X-Warm is certified according to
 EN ISO 14116:2008 Index 3/5H/60
 EN 14058:2004 Level 1-1-X-X-X

.....
 KEY CHARACTERISTICS

FABRIC WEIGHT
220g/m²



MOCKNECK



BALACLAVA



HOOD SWEATER



LONGS

X-WARM 400 FR

69% Wool, 19% Polyamide,
11% Meta-Aramid,
1% Antistatic

Designed for the protection
of the body against
thermal risks of limited
flame spread, convective
heat, radiant heat and
contact heat and against
the risk of accumulation
of electrostatic loads.

X-Warm 400 FR is
certified according to
EN ISO 11612:2015
A1 B1 C2 F2
EN 1149-5:2008

.....
KEY CHARACTERISTICS

FABRIC WEIGHT
360g/m²

.....



JACKET



LONGS

WORK PRODUCTS

WOOLNET

91% Merino Wool, 7% Polyamide, 2% Elastane. Net underwear in merino for those with varying activity levels. Unique moisture wicking abilities due to few contact points to the body, and insulates during inactivity because of the heated air close to your skin. The fabric on shoulders, elbows and knees are rib-knitted for improved comfort.

.....
KEY CHARACTERISTICS

FABRIC WEIGHT
140g/m²

.....



CREW NECK



LONGS

LIGHTWOOL

100% Merino Wool. Single Jersey. Made of the highest quality merino wool, in 17,5 micron, which makes it very light and comfortable.

Lightwool keeps you warm at winter, but also has a cooling effect on warm days.

.....

KEY CHARACTERISTICS

FABRIC WEIGHT

140g/m²

.....



T-SHIRT

WORK PRODUCTS

WARM

100% Merino Wool. Rib knitted. A comfortable base layer which gives good protection against cold conditions. Wool fibres can absorb up to 35% of it's own weight before you feel wet.

.....
KEY CHARACTERISTICS

FABRIC WEIGHT
190g/m²

.....



MOCKNECK W/ZIP



CREWNECK



LONGS

WARMWOOL

100% Marino Wool.
Knitting method: interlock.
Made of Total Easy Care
(TEC) treated merino
wool, which makes the
garments extra soft.
Insulated very well when
you get wet.

.....
KEY CHARACTERISTICS

FABRIC WEIGHT
200g/m²

.....



OVERALL



OVERALL - BACKSIDE



CREWNECK



LONG PANTS



SHORTS LONG



HOODSWEATER



BODYPIECE

WORK PRODUCTS

HOTWOOL

65% Merino Wool, 20% Polyester, 15% Polyamide.
Terry knit.

The fiber mix makes the garment thick and durable. The terry loops on the inside trap body heat onto your skin, which helps you maintain a steady bodytemperature.

.....
KEY CHARACTERISTICS

FABRIC WEIGHT
230g/m²
.....



LIGHT JACKET

POLO W/ZIP



CREWNECK



LONGS

HOTWOOL

70% Merino Wool, 30% Polyamide. Terry knitted. 400 g terry wool are for mid layer use and gives extra insulation. Our terry fabric is a wool blend where wool makes up the largest component and it is mixed with other fibers to make the garments thicker and more durable than pure wool.

.....
KEY CHARACTERISTICS

FABRIC WEIGHT
400g/m²
.....



ACLIMA TERRY
WOOL WITH
LONG LOOPS,
HOLDS A GREAT
AMOUNT OF AIR.



JACKET



JACKET



LONGS

DOUBLEWOOL

100% Merino Wool (outside). Knitting method: Interlock. 80% Merino Wool, 20% Polyamide (liner) Net knitted.

Made of a superb mixture of materials, woolnet towards the body, and warmwool as the next layer. By combining these fabrics the product has optimal wicking properties.

KEY CHARACTERISTICS

FABRIC WEIGHT
320g/m²



POLO W/ZIP

LONG PANTS



DOUBLEWOOL
WOOL LINER



CONTINUOUS PRODUCT DEVELOPMENT

**WORK
PRODUCTION**

ACCESSORIES



FORRESTER
CAP



WARMWOOL
JIB BEANIE



DOUBLEWOOL
NECKGAITER



HEADOVER



BALACLAVA REVERSIBLE

ACCESSORIES



LINER SOCK



WARMWOOL
SHORT SOCK



HUNTING
SOCK



HOTWOOL
SOCK



HOT WOOL
SPORTS TOP



LINER
GLOVES



BALACLAVA

WORK PRODUCTS



Johan Skullmann

- active user of ACLIMA clothing.

Johan Skullman from Sweden knows what he is talking about. After 30 years in the Swedish Armed Forces, where he mainly worked with developing and testing of personal equipment and clothing, he has years of experience in dressing appropriately for the weather. Today, Skullman is a freelance consultant for ACLIMA.

- I think ACLIMA is unique in terms of wool underwear. They have developed knitting patterns and experimented with various combinations of wool and other fabrics to create clothes for every situation.

“Dress up in a base layer, an insulation layer and a shell layer.”

SUSTAINABILITY & SOCIAL RESPONSIBILITY

All our products are free from harmful substances, and the chemicals used in dyeing of the fabric is strictly controlled and approved by Oeko-tex 100.



ACLIMA supports the **UN Global compacts** 10 basic principles for human rights, workplace safety, environment and corruption. We have our own strict “Code of conduct” that is signed by all our partners and suppliers.

Sustainability and safety are some of our core values, and are implemented in every process from product development to the finished goods.

MADE IN EUROPE

All yarnspinning, knitting, dyeing and finishing processes are done by skilled European partners. All are regularly controlled to make

sure they upkeep our standards. The dyeing and finishing use certified water treatment systems, according to Reach and Oeko-tex as well as ISO 14001 (Environmental management) and SA8000 (Social Accountability). This is done to ensure environmental and work safety, but also continuous improvement.

ANIMAL WELFARE

We exclusively use yarn suppliers who take animal welfare seriously. We make sure, and follow up, that Mulesing is never used on animals we buy wool from. All our yarn suppliers have certificates ensuring “Non Mulesing”.

ACLIMA is closing up on the goal of full traceability, from the sheep farm till the ready made product. We have visited farms to see the handling of the animals, travelled along the chain of preparing wool into yarn, seen the knitting plant, dye house and the sewingplant. Each garment has a number in the neck to follow all the steps.

We are constantly testing the fabrics to see if it has the standards we want, all from Flame Resistant Properties to Oeko-Tex values.



NORWAY

ANYWHERE UNDERWEAR

ACLIMA focuses only on the development and production of high quality underwear. This is the reason why professional buyers trust the company as specialists that understand solutions for a wide variety of climates, situations and needs.

www.new-direction.no



ACLIMA

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