



**Functional Underwear
SAFE Europe, Prague**

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 **survitecgroup**

Status

- ▶ PFE outer layers optimized for materials and design
- ▶ Modern multi layer approach
- ▶ Latest technology tailoring and fitting

- ▶ Starting point to rethink the layers next to skin!

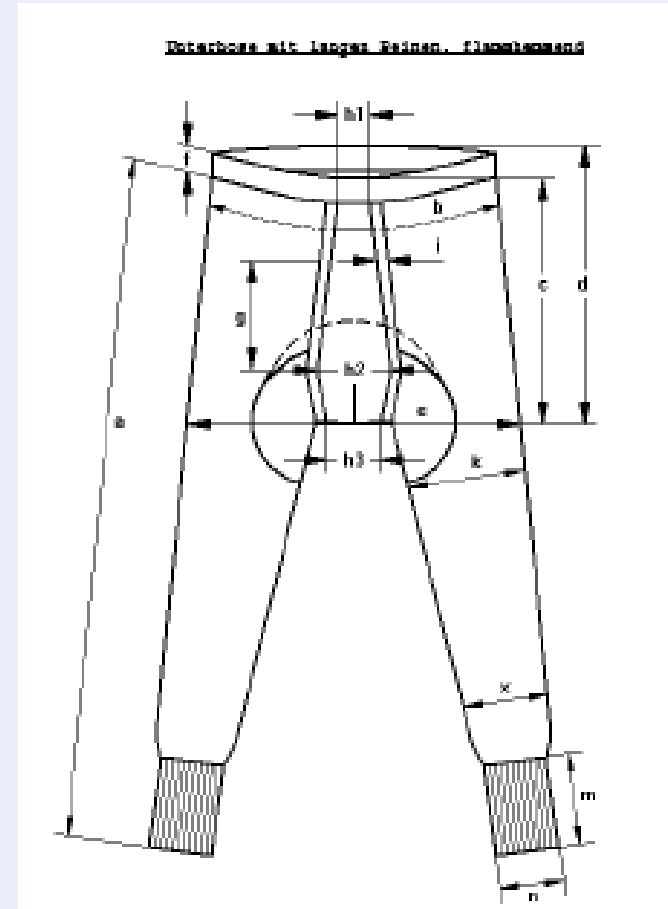
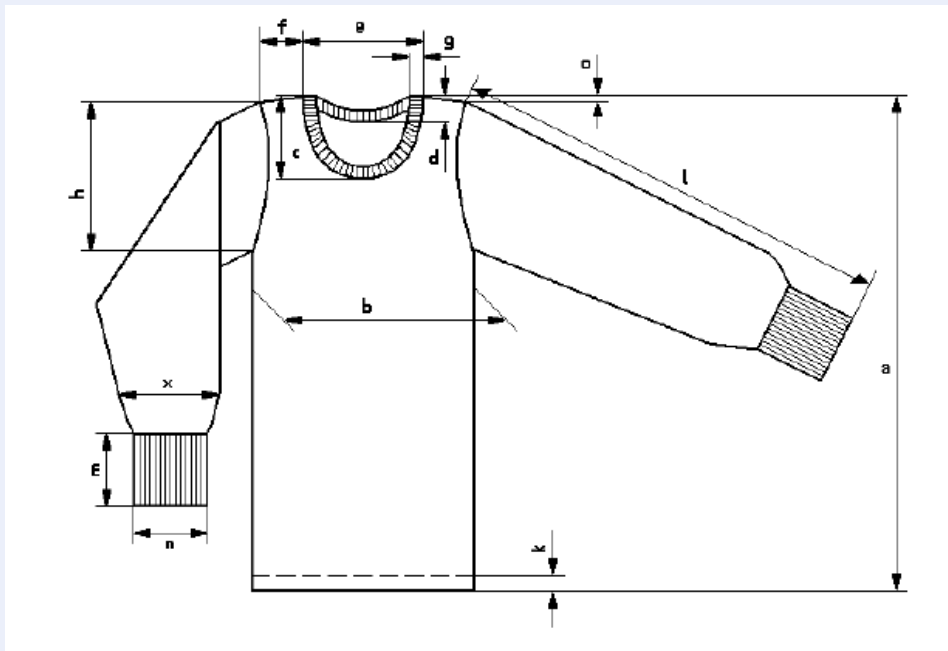
German Air Force concept

- ▶ Functional Nomex underwear
- ▶ Thermal Protection Garment (Nomex / wool blend)
- ▶ Immersion Protection Garment

- ▶ Qualified as system
- ▶ Protection even if damaged on the outer layer

Status

- ▶ Old design
- ▶ Specification from the 80s
- ▶ Tailoring not to reflect modern technology



Status

- ▶ Outdoor / Sportswear
- ▶ Functional textiles and construction
- ▶ Modern design
- ▶ No flame / fire protection

Future concept

- ▶ Seamless design
- ▶ Sweat management system
- ▶ Body mapping approach / Bionics
- ▶ Modern design
- ▶ Anti static
- ▶ Anti microbial finish
- ▶ Flame retardant

Material

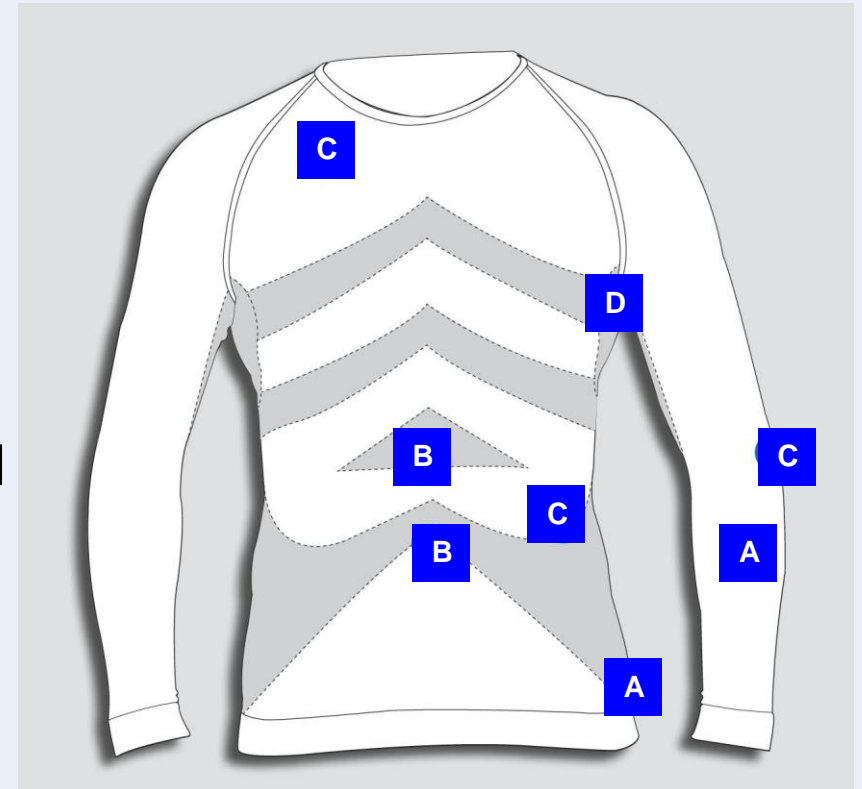
- ▶ Inherent flame retardancy (DIN EN 532/33)
- ▶ Anti-static fibres 2% (DIN EN ISO 1149-3)
- ▶ LOI value up to 35
- ▶ Blended fibres for maximum comfort (Protex / Cotton / Lycra / anti-static)

Silver-ionic finish

- ▶ Antiseptic
- ▶ Antibacterial
- ▶ Antimicrobial
- ▶ Tested to be still effective after 100 wash cycles
- ▶ Effective cleaning is guaranteed even at lower washing temperatures
- ▶ In accordance with Öko-Tex standards
- ▶ No smell irritation

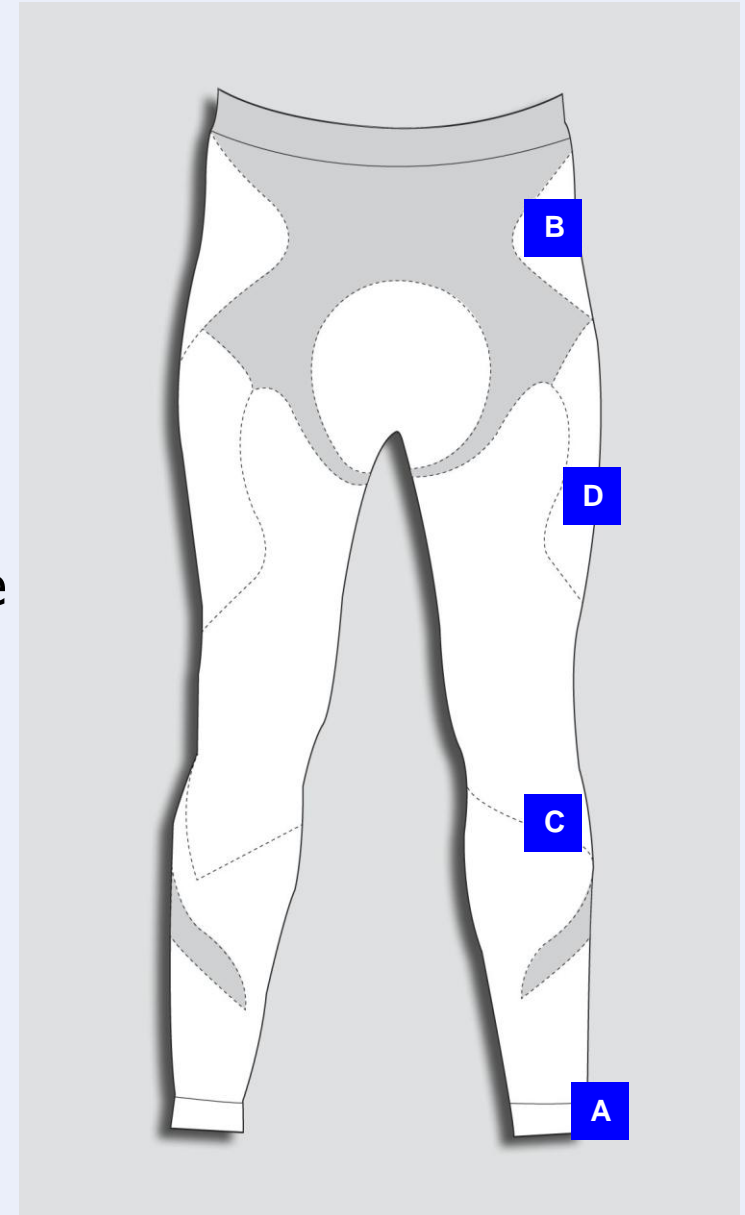
Design

- A** Soft ribs with seamless construction to improve comfort.
- B** Broad cooling ribs ensure an excellent fit and increase thermal comfort - the increased surface area means that moisture can evaporate more effectively.
- C** Highly elastic knit has been used to avoid folds and ensure a comfortable fit.
- D** A quick drying open knit has been used to create ventilating channels which increase thermal comfort.



Design.....

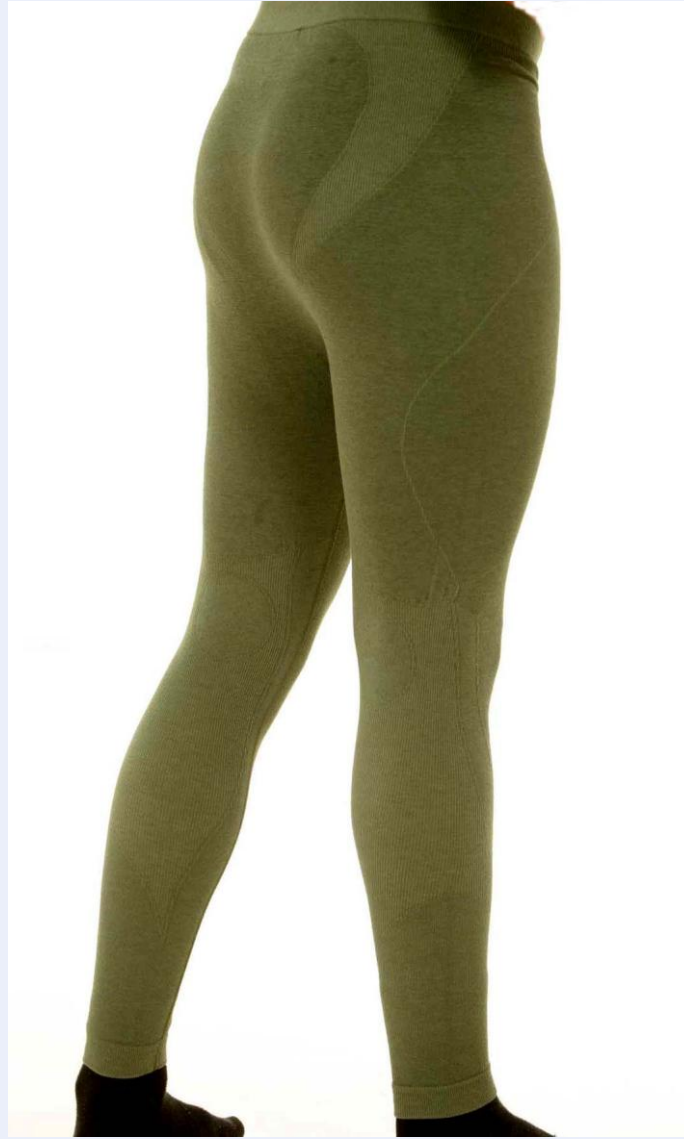
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Design



Design



Design features

- Long sleeved tops and leggings
- 6 standard sizes
- Sage green, navy or anthracite

Way forward

- ▶ Field trials
- ▶ Design of improved thermal protection garment

Potential User

- ▶ Law enforcement
- ▶ Oil rig personnel
- ▶ Fire fighter
- ▶ Industrial application

Protection for every mission

