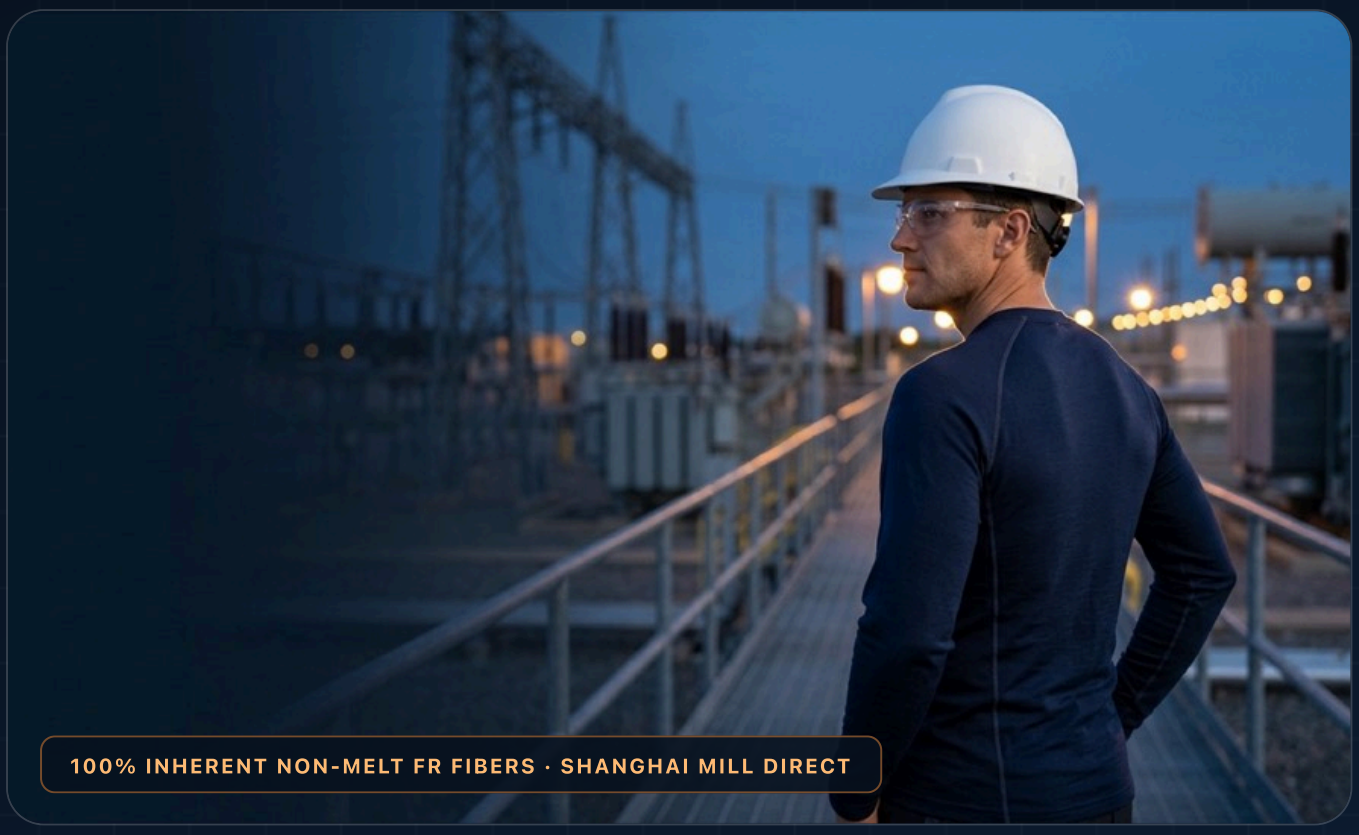
KEENSUN SAFETY

TECHNICAL FR KNITWEAR OEM / ODM

2026 EDITION · 44 SKUS



EUROPEAN & NORTH AMERICAN PPE SOURCING GUIDE

2026 Technical FR Knitwear & Protective Base Layer Catalog

Complete OEM/ODM program covering inherent flame-resistant base layers, EN 1149-5 antistatic garments, 3D circular seamless knitwear, merino wool thermal sets, K-PCM™ cooling apparel, and ergonomic industrial supports.

EN ISO 11612	IEC 61482-2	EN 1149-5	NFPA 2112 / 70E
Heat & Flame (A1/B1/C1)	Electric Arc (APC 1 / ELIM)	Antistatic / ATEX Control	Flash Fire & Arc Layering

Shanghai Keensun Safety Team · Shanghai, China www.keensunsafety.com | info@keensunsafety.com | WhatsApp: +86 185 1667 0372

DIRECT SHANGHAI FR KNITTING PARTNER

Engineering Comfort Beneath High-Risk Industrial PPE

Shanghai Keensun Safety Team specializes exclusively in next-to-skin protective knitwear for European, UK, and North American PPE brands. Every fabric platform is engineered with wash-permanent inherent flame-resistant fibers and ergonomic stretch recovery—never topical chemical finishes that wash away.



44 SKUs
Production-Ready Models

100% Inherent
Permanent Non-Melt FR

300–500 pcs
Flexible Trial MOQ*

7–14 Days
Custom Fit Prototyping

CATALOG DIRECTORY (ALL SKUS CLICKABLE ONLINE)

01 **Inherent FR Base Layers** — 19 SKUs · Tops, Polos, Leggings, Women's FR & Headwear — P. 03–05

02 **3D Seamless Knitwear** — 16 SKUs · Santoni-Grade Tops, Bottoms, Boxers & Tubes — P. 06–08

03 **Merino Wool Base Layers** — 3 SKUs · Cold-Climate Thermal Shirts & Leggings — P. 09

04 **Cooling Performance Apparel** — 2 SKUs · K-PCM™ & Zink Yarn Cool-Touch Polo — P. 09

05 **Knitted Industrial Support Wear** — 2 SKUs · 3D Elastic Wrist & Ankle Compression — P. 10

06 **OEM / ODM Private-Label Programs** — 2 Programs · Custom Yarn, Labeling & Export — P. 10–11

INTERNATIONAL PPE STANDARDS & FABRIC PLATFORMS

Standard	Market	Protection Scope	Recommended Keensun Fabric Platform
EN ISO 11612	Europe / UK	Heat & Flame Spread (A1/A2, B1, C1)	180–240 GSM Modacrylic / Cotton / Antistatic Interlock or Piqué
IEC 61482-2	Europe / Global	Electric Arc Thermal Hazard (APC 1 / ELIM)	200–280 GSM Modacrylic / Merino FR & 3D Seamless Layering
EN 1149-5	Europe / ATEX	Electrostatic Charge Dissipation (ESD)	60% Modacrylic / 39% Cotton / 1% Carbon Antistatic Grid
NFPA 2112 & 70E	USA / Canada	Industrial Flash Fire & Arc Flash Layering	Inherent Non-Melt Modacrylic Knitwear (CAT 1–2 Base Systems)

Third-Party Accredited Lab Coordination: SGS · Intertek · Aitex · Centexbel · BTTG / Shirley · UL

SECTION 01 · 19 PURE INHERENT FR SKUS

Inherent FR Base Layers — Tops & Long-Sleeve Shirts

155–240 GSM · Wash-Permanent Modacrylic & EN 1149-5



9008 EN 1149-5

EN 1149-5 Certified FR Long Sleeve Shirt

180-250 gsm · Single Jersey Knit

EN 1149-5 | EN ISO 11612



FR9016 EN 1149-5

EN 1149-5 FR Long Sleeve Shirt

60% Modacrylic / 39% Cotton / 1%... · Approx. 200 g/m²

EN 1149-5 | EN ISO 11612



9005 FR Base Layer

Modacrylic FR Long Sleeve Shirt

180-250 gsm · Single Jersey Knit

EN 1149-5 | EN ISO 11612



FR9002 FR Base Layer

Flame-Retardant Long Sleeve Base Layer Shirt

70% LENZING FR® Viscose / 19%... · 180 – 240 GSM

EN 1149-5 | EN ISO 11612



FR9004 FR Base Layer

Flame-Retardant Base Layer T-Shirt

190 g/m² · Technical Knitted Fabric

EN ISO 11612



FR9013 FR Base Layer

FR Polypropylene Base Layer T-Shirt

190g/m² · Technical Knitted Fabric

Inherent FR | OEM / ODM

SECTION 01 CONTINUED

FR Polo Shirts, Zip Necks & Thermal Leggings

Flatlock Anti-Chafe Seams · Non-Melt FR Elastic



FR9008 — FR Base Layer

Flame Retardant Long Sleeve Polo Shirt

60% Modacrylic / 39% Cotton / 1%... · 180 – 240 GSM

EN 1149-5 · EN ISO 11612



FR9009 — FR Base Layer

Flame-Retardant Industrial Polo Shirt

60% Modacrylic / 39% Cotton / 1%... · 180 – 240 GSM

EN 1149-5 · EN ISO 11612



FR9005 — FR Base Layer

FR Zip Neck Shirts

60% Modacrylic / 39% Cotton / 1%... · 180 – 240 GSM

EN 1149-5 · EN ISO 11612



FR9010 — FR Base Layer

Flame Retardant Zip Neck Shirts

60% Modacrylic / 39% Cotton / 1%... · 180 – 240 GSM

EN 1149-5 · EN ISO 11612



9006 — EN 1149-5

EN 1149-5 Certified FR Leggings

180-250 gsm · Single Jersey Knit

EN 1149-5 · EN ISO 11612



FR9003 — FR Base Layer

Flame-Retardant Base Layer Leggings

70% LENZING FR® Viscose / 19%... · 180 – 240 GSM

EN 1149-5 · EN ISO 11612

SECTION 01 CONTINUED · DEDICATED WOMEN'S PPE & HEAD PROTECTION

Women's Ergonomic FR Bra, Leggings, Balaclavas & Beanies

XS–3XL Female Grading · Helmet-Ready Headwear



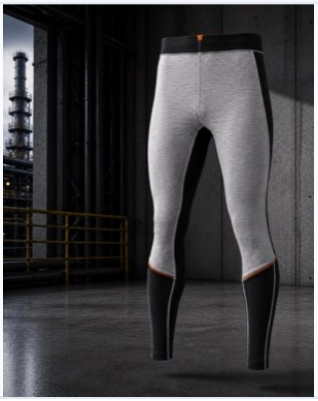
WMBRA001 — Women's PPE Spotlight

Women's FR Bra | Flame Resistant Modacrylic Base Layer

Discover Keensun Women's FR Bra made from inherently flame-resistant Modacrylic blends. Designed for women with superior comfort...

FIBER / MATERIAL	FABRIC WEIGHT	CONSTRUCTION
Modacrylic / FR Rayon/ FR Polypropylene...	180–240 gsm (customizable)	Circular Knitted

EN 1149-5 · EN ISO 11612 · IEC 61482-2



FR9007 — FR Base Layer

Flame Retardant Leggings

60% Modacrylic / 39% Cotton / 1%... · 180 – 240 GSM

EN 1149-5 · EN ISO 11612



9008 — EN 1149-5

EN 1149-5 Certified FR Balaclava

180-250 gsm · Single Jersey Knit

EN 1149-5 · EN ISO 11612



FR9001 — FR Base Layer

Flame Retardant Balaclava (FR)

Modacrylic / Cotton / Antistatic · 220g/m²

EN 1149-5 · EN ISO 11612

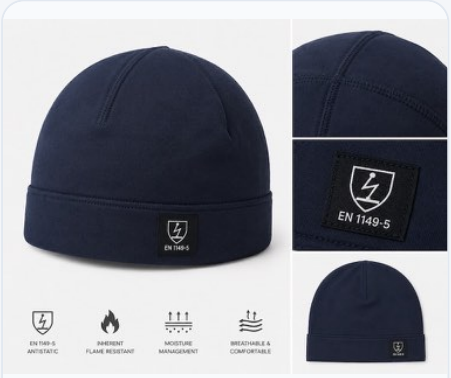


9009 — EN 1149-5

EN 1149-5 Certified FR Neck Tube

180-250 gsm · Single Jersey Knit

EN 1149-5 · EN ISO 11612



9005 — EN 1149-5

EN 1149-5 Certified FR Beanie

180-250 gsm · Single Jersey Knit

EN 1149-5 · EN ISO 11612



FR9013 — FR Base Layer

Flame Resistant Beanie

60% Modacrylic / 39% Cotton / 1%... · 180 – 240 GSM

EN 1149-5 · EN ISO 11612

SECTION 02 · 16 CIRCULAR SEAMLESS SKUS

3D Seamless Knitwear — Tops, Vests & Half-Zip Polos

Santoni-Grade Tubular Knitting · Zero Side-Seam Chafing



S9001 3D Seamless

Engineered Seamless FR T-Shirt

Modacrylic / Cotton / Antistatic · 220g/m²

EN 1149-5 | EN ISO 11612



SM9008 3D Seamless

CoreFlex Vest (tech mesh)

190 g/m² · Seamless Knitting

3D Seamless



SM9009 3D Seamless

Technical Knitted Seamless T-Shirt

190 g/m² · Seamless Knitting

3D Seamless



FR9005-A 3D Seamless

Seamless FR 1/2-Zip Polo Shirt (Lightweight)

200 g/m² · Seamless Knitting

EN 1149-5 | EN ISO 11612



FR9005-B 3D Seamless

Seamless FR 1/2-Zip Polo Shirt (Heavyweight)

200 g/m² · Seamless Knitting

EN 1149-5 | EN ISO 11612



FR9006 3D Seamless

Seamless ZIP FR Polo Shirt

200 g/m² · Seamless Knitting

EN 1149-5 | EN ISO 11612

SECTION 02 CONTINUED

Seamless Leggings, Boxers, Women's Layers & Balaclavas

Body-Mapped Ventilation · 360° Ergonomic Mobility



S9002 3D Seamless

Engineered Seamless FR Leggings

Modacrylic / Cotton / Antistatic · 220g/m²

EN 1149-5 · EN ISO 11612



SM9003 3D Seamless

Technical Seamless Boxer

Inherent FR Modacrylic Blend · 180 – 240 GSM

3D Seamless



LD9001 Women's Fit

Women's Technical Knitted Long-Sleeve Shirt

200 g/m² · Technical Knitted Fabric

Inherent FR · OEM / ODM



SM9002 Women's Fit

Women's Technical Long-Sleeve Shirt

220 g/m² · Seamless Knitted Fabric

3D Seamless



LD9002 Women's Fit

Women's Technical Knitted Leggings

200 g/m² · Technical Knitted Fabric

Inherent FR · OEM / ODM



FRB9001 3D Seamless

Seamless FR Balaclava & Helmet Liner

55% Polyester / 38% Polyamide / 7%... · 180 – 240 GSM

3D Seamless

SECTION 02 CONTINUED · HEAD & NECK ACCESSORIES

Seamless Balaclavas, Neck Tubes & Knit Beanies

Zero Crown-Seam Pressure Under Safety Helmets



SM6002 3D Seamless

Technical Seamless Balaclava

55% Polyester / 38% Polyamide / 7%... · 180 – 240 GSM

3D Seamless



SM6001 3D Seamless

Engineered Seamless Tube

100% Polyester · 180 – 240 GSM

3D Seamless



ST001 3D Seamless

Technical Knitted Seamless Neck Tube

100% Polyester · 180 – 240 GSM

3D Seamless 360° Stretch



SM9009 3D Seamless

Seamless Knit Beanie for Industrial Workwear

210 g/m² · Seamless Knitting

3D Seamless

WHY 3D SEAMLESS KNITTING FOR PPE?

Higher Wearer Compliance Across 12-Hour Shifts

Conventional cut-and-sew underwear creates bulky seam ridges under heavy arc-flash suits, harnesses, and hard hats. Keensun's tubular seamless machines knit ventilation mesh, stretch articulation, and thermal zones directly into one continuous garment.

-70%	360°	1–2 Ply
Fewer friction seams	Non-melt stretch recovery	Custom arc-rated liners

SECTION 03 · 3 COLD-CLIMATE THERMAL SKUS

Merino Wool Base Layers (200–280 GSM)

Nordic, Offshore & Sub-Zero Utility Layering



FR9011 · Merino Wool

Technical Merino Base Layer Shirt

55% Merino Wool / 45% Polypropylene · 200 g/m²

Merino Wool



MWT01 · Merino Wool

Men's Merino Wool Long-Sleeve Shirts

200 g/m² · Technical Knitted Fabric

Merino Wool



FR9012 · Merino Wool

Men's Merino Wool Legging

55% Merino Wool / 45% Polypropylene · 200 g/m²

Merino Wool

SECTION 04 · 2 HEAT-STRESS REDUCTION SKUS

Cooling Performance Apparel (K-PCM™ & Zink Yarn)

Active Thermal Absorption · High Air Permeability



K9018 · K-PCM™

K-PCM™ Temperature Regulating FR T-Shirt

Stay protected and comfortable with K-PCM™ FR Base Layer. Featuring advanced PCM technology that helps regulate body temperature by...

COOLING TECH	FABRIC WEIGHT	CONSTRUCTION
K-PCM™ / Zink Yarn Cool-Touch Knit	180 – 240 GSM	Technical Industrial Knitwear

EN 1149-5 · EN ISO 11612 · K-PCM™ Cooling



FR9009 · Cool-Touch

Zink Yarn Cool-Touch Technical Polo Shirt

Flame-retardant fabric with cooling treatment developed for high-performance industrial workwear applications. Combines reliable FR...

FIBER / MATERIAL	FABRIC WEIGHT	CONSTRUCTION
59% Modacrylic / 39% Cotton / 2%...	180–190 g/m²	Lightweight Knitted Fabric

EN 1149-5 · EN ISO 11612 · K-PCM™ Cooling

SECTION 05 · 2 ERGONOMIC COMPRESSION SKUS

Knitted Industrial Support Wear

3D Knitted Elastic Support for Repetitive Labor



AS6008 — 3D Compression

Elastic Ankle Support Brace

Elastic ankle support designed to provide compression, stability and comfort for industrial work, sports and daily activities....

FIBER / MATERIAL	SIZING & FIT	MOQ & SAMPLING*
95% Nylon / 5% Spandex	EU / US XS – 3XL+ (Custom Grading)	300–500 pcs · 7–14 Day Fit Samples

3D Knitted Compression · Ergonomic Support



ISS001 — 3D Compression

3D Knitted Industrial Wrist Support

Industrial Protective Wrist Support featuring advanced 3D knitting technology for targeted compression, wrist stability, and all-day...

FIBER / MATERIAL	SIZING & FIT	MOQ & SAMPLING*
95% Nylon / 5% Spandex	EU / US XS – 3XL+ (Custom Grading)	300–500 pcs · 7–14 Day Fit Samples

3D Knitted Compression · Ergonomic Support

SECTION 06 · PRIVATE-LABEL MANUFACTURING

OEM / ODM Custom PPE Knitwear Programs

Full Confidentiality Under NDA · Export Worldwide



OEM-ODM — OEM / ODM

Custom Private-Label PPE Development (OEM / ODM)

Keensun provides OEM and ODM manufacturing for technical knitwear, including PPE, FR base layers, seamless garments and cooling...

SERVICE SCOPE	SIZING & FIT	MOQ & SAMPLING*
Full OEM / ODM Private-Label FR Knitwear	EU / US XS – 3XL+ (Custom Grading)	300–500 pcs · 7–14 Day Fit Samples

OEM / ODM · Private Label · Custom GSM & Blend



OEM-PRO — OEM / ODM

OEM & ODM FR Knitwear Manufacturing Program

Keensun provides OEM and ODM manufacturing for technical knitwear, including PPE, FR base layers, seamless garments and cooling...

SERVICE SCOPE	SIZING & FIT	MOQ & SAMPLING*
Full OEM / ODM Private-Label FR Knitwear	EU / US XS – 3XL+ (Custom Grading)	300–500 pcs · 7–14 Day Fit Samples

OEM / ODM · Private Label · Custom GSM & Blend

01 **Tech Pack & Yarn**
Blend, GSM & target EN / NFPA standards

02 **7–14 Day Sample**
Custom fit prototypes & swatch cards

03 **3rd-Party Lab**
SGS, Intertek, Aitex, BTTG or UL testing

04 **35–45 Day Bulk**
AQL inspection · FOB / CIF / DDP export

KEENSUN SAFETY
SHANGHAI KEENSUN SAFETY TEAM

REQUEST FREE SWATCH BOOK

START YOUR PRIVATE-LABEL PPE PROGRAM

Request Complimentary FR Fabric Swatches, Tech Packs or FOB Shanghai Pricing

Whether you are launching a new European utility base layer range, expanding a North American arc-flash catalog, or sourcing women's inherent FR undergarments, our Shanghai technical team replies within 24 business hours.

Custom Yarn & Pantone

Stock FR yarn colors (Navy, Black, Charcoal, Heather Grey, Hi-Vis Yellow) from 300–500 pcs*, or custom Pantone yarn dyeing at mill minimums.

EU / US Grading & Labeling

Unisex XS–5XL and dedicated women's XS–3XL size blocks, flatlock contrast stitching, and tagless FR heat-transfer pictogram/care labels.

Retail Packaging & Logistics

Custom polybags, retail PPE cartons, EAN/UPC barcodes, lot-level AQL quality reports, and FOB Shanghai / CIF / DDP shipping.

Accredited Lab Support

Reference fabric test reports provided during swatch evaluation, plus coordinated garment testing with SGS, Intertek, Aitex, BTTG & UL.

DIRECT FACTORY CONTACT DESK

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Shanghai Keensun Safety Team

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Full Online 44-SKU Catalog
https://www.keensunsafety.com/products.html

Official LinkedIn Page
linkedin.com/company/116051094

*MOQ and lead times vary by FR yarn colorway, GSM weight, and third-party certification testing scope.

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