

# SAFETY FOOTWEAR



**& WORKWEAR**

**Iron  
Steel<sup>®</sup>**  
SCANDINAVIA

# Footwear Symbols



**ALUMINIUM  
TOECAP**



**COMPOSITE  
TOECAP**



**LIGHT  
WEIGHT**



**OIL RESISTANT  
OUTSOLE**



**HEAT  
RESISTANT  
OUTSOLE**



**BREATHABLE  
MATERIAL**



**NON-METAL  
ANTI-  
PENETRATION**



**ANTISTATIC**



**ESD**



**WATER  
RESISTANT  
UPPER**



**WATERPROOF**



**COLD  
INSULATION**



**HEEL ENERGY  
ABSORPTION**



**PORON  
CUSHIONING**



**SR SLIP  
RESISTANCE  
RATING**

# Oslo

#201673 380g

**Super Light Weight  
Ergonomic  
Footbed**

**Unique Boa Lacing-system**

**Supportive  
Heel-cap**

**Durable  
Upper  
Fabric**

**Light Weight  
Sporty Injection  
Phylon Midsole**

**Reinforced  
Front-cap**

**Gravity® Bump Outer Sole  
Flex-lines Facilitate Movement**

EUR 36 – 47

EN ISO 20347:2022 O1 E FO HRO WPA SR ESD

**BOA®** | FIT TO GO  
FURTHER.™



# Milano

#201489 520 g

Antistatic Removable  
Cambrelle IP  
Footbed including  
Poron®

High Abrasion Resistant  
Breathable Mesh

High  
Rebound  
Compound  
Phylon  
Midsole

Aluminium  
Toe Cap

Non-metal  
Anti-penetration

Dual Density  
Light Weight Sole

EUR 37 - 47

EN ISO 20345:2011 S1P HRO SRC



# Verona

#201606 564g

Antistatic Removable  
Cambrelle IP  
Footbed including  
Poron®

High Abrasion Resistant  
Breathable Mesh

High  
Rebound  
Compound  
Phylon  
Midsole

Aluminium  
Toe Cap

Non-metal  
Anti-penetration

Dual Density  
Light Weight Sole

EUR 37 - 47

EN ISO 20345:2011 S1P HRO SRC

BOA®

FIT TO GO  
FURTHER.™

poron<sup>xrd</sup> extreme  
impact  
protector



# Leeds

#201550 590 g



EUR 37 - 47

EN ISO 20345:2011 S1P HRO SRC

BOA®

FIT TO GO  
FURTHER.™

poron<sup>xrd</sup> extreme  
impact protector



# Sheffield

#201579 620 g



EUR 37 – 47

EN ISO 20345:2011 S3 HRO SRC

**BOA®** | FIT TO GO FURTHER.™

poron<sup>xrd</sup> extreme impact protector



# Chicago

#201306 635g



EUR 37 – 47

EN ISO 20345:2011 S1P HRO SRC

**BOA®** | FIT TO GO FURTHER.™

poron<sup>xrd</sup> extreme impact protector





# Boston

#201614 604g

**Antistatic  
Removable  
Poron® XRD®  
Footbed**

**Breathable Comfortable Upper**

**Non-metal  
Anti-penetration**

**Lightweight  
Sporty Injection  
Phylon Midsole**

**Dual Density Outer Sole,  
Flex-lines Facilitate Movement**

**Aluminium  
Toe Cap**



EUR 37 – 47

EN ISO 20345:2011 S1P HRO SRC

**BOA®**

**FIT TO GO  
FURTHER.™**

**poron<sup>xrd</sup>** extreme  
impact  
protector



# Harlem

#201650 720 g



**BOA®**

**FIT TO GO  
FURTHER.™**

**poron<sup>xrd</sup>** extreme  
impact  
protector



# Wrexham

#201710 540 g

**Super Light  
Weight  
Ergonomic  
Footbed**

**Durable Comfortable Upper**

**Non-metal  
Anti-penetration**

**Reinforced  
Rubber  
Front-cap**

**Light Weight  
Sporty Injection  
Phylon Midsole**

**Gravity® Bump Outer Sole  
Flex-lines Facilitate Movement**

**Aluminium  
Toe-cap**

EUR 36 – 47

EN ISO 20345:2022 S1PL FO HRO SR ESD

**BOA®**

**FIT TO GO  
FURTHER.™**



# Mersey 2

#211613 680g



EUR 37 – 47

EN ISO 20345:2022 S7L FO HRO SR ESD

**BOA**

**FIT TO GO FURTHER.**

**HDry**

**poronXrd** extreme impact protector



# Orlando

#201830 670 g



EUR 36 – 47

EN ISO 20345:2022 S7S CI AN FO HRO SC SR

**BOA®** | FIT TO GO FURTHER.™

**HDry**



# Kasai

#201548 670 g



EUR 39 – 47

EN ISO 20345:2011 S3 HRO WR SRC

**BOA®**

**FIT TO GO FURTHER.™**

**HDry**

**poronXrd** extreme impact protector



# K2

# #201475 740g



EUR 37 – 47

EN ISO 20345:2011 S3 CI HRO WR SRC

**BOA®** | FIT TO GO FURTHER.™

**HDry®**

**3M**  
**Thinsulate**  
INSULATION

**poron**XRD | extreme impact protector



# Technical Wool Socks #21010300



## Comfortable and Durable, for Work and Leisure

- Anatomically customized to provide superior fit
- Wool provides unsurpassed protection for the feet
- The natural fibres in the material regulate body temperature
- Composition: 57% wool / 18% polyester / 25% nylon
- Packaging, size and weight: 2-pack / one size / 58 g per pair
- Colours: Black/orange, grey logo





# Gravity-IP

#210102 44g



EUR 01(36-38), 02(39-41), 03(42-44), 04(45-47)

## Injection Phylon (IP) and Poron®

- Air ventilation plus fast-dry surface technology
- Releases tension during physical performance
- Uniquely designed stabilizing arch support
- Shock absorbing heel inserts

**Iron Steel®**  
GRAVITY-IP INSOLE

GRAVITY-IP INSOLE

The Gravity-IP insole comes with an anatomical 3D foot model to support the heel, mid- and forefoot while at the same time ensuring shock on muscles and joints.

The yellow Poron® Performance material reduces the harmful shock waves caused by excessive work and activities. Poron® ensures performance, provides long-lasting comfort and excellent compression resistance.

The Shock-IP Injection Phylon is a very light and dynamic material that provides the combination of extra support and shock absorption plus energy in return with every step.



# European Standards Footwear Classifications

Function	European Standards EN ISO 20345 for safety footwear
Impact Resistance	Level of protection: 200 Joules
Compression Resistance	Level of protection: 15kN
Anti - penetration Sole	With symbol of "P" resist a penetration force of 1,100 Newtons (N)

Marked	Standard for EN ISO 20345:2022	Marked	Standard for EN ISO 20347:2022
SB	Basic requirements for safety footwear: - Standing 200 Joules on impact - Slip resistance of SRA, SRB or SRC standard	OB	In terms of comfort and wear resistance, a level of quality as defined by an agreed European Standard
S1	As above SB standard, plus: - Closed seat region - Antistatic properties - Energy absorption of seat region - Resistance to fuel oil	O1	As above OB standard, plus: - Closed heel area - Antistatic properties - Energy absorption of seat region
S1P	As above S1 standard, plus perforation resistance	O2	As above O1 standard, plus: - Water-penetration and absorption resistance
S2	As above S1 standard, plus: - Water penetration and absorption - Non cleated outsole		
S3	As above S2 standard, plus: - Penetration resistance - Cleated outsole		
S7L	As above S3 standard, plus: - Non-metallic perforation resistant insert with resistance to 4.5 mm nails - Water resistant on whole footwear		

# European Standards Footwear Classifications

(Cont.)

## Slip resistance according to the EN ISO 20345:2011

The following markings show on which ground the footwear provides protection (how much friction):

Marked	Lubricant	Test Area	Test Mode	Normative standards friction coefficient
SRA	NaLS	Ceramic tile floor	Forward heel slip	$\geq 0,32$
			Forward flat slip	$\geq 0,28$
SRB	Glycerol	Steel floor	Forward heel slip	$\geq 0,18$
			Forward flat slip	$\geq 0,13$
SRC	Tested and conforms to both (SRA & SRB) specification tests			

## Slip resistance according to the EN ISO 20345:2022

Slip resistance is an important feature of safety footwear. It is considered mandatory and will therefore not carry a mark. There is an option for an additional slip test to be carried out, which will be marked with an SR symbol. The slip resistance test is carried out on a ceramic tile using different lubricants. The heel and forepart of the boot will be tested.

Marking	Basic Requirement		Additional Requirement SR	
Surface	Ceramic		Ceramic	
Lubricant	NaLS		Glycerine	
Position	Heel	Forepart	Heel	Forepart
Direction	Forward	Backward	Forward	Backward
Requirement COF	$\geq 0,31$	$\geq 0,36$	$\geq 0,19$	$\geq 0,22$

COF = coefficient of friction

Please note that even if the footwear is marked with SRC or SR, the user must always pay attention to the condition on the ground as the responsibilities always stays with the user.

# European Standards Footwear Classifications

(Cont.)

Symbols	Function	Requirement
A	Antistatic	Between 0.01 and 1000 M $\Omega$
P	Penetration resistance metallic insert	At least 1,100 newtons of pressure, tested with 4.5 mm nail
PL/PS	Perforation resistance non-metallic insert	PL - With 1,100 newtons of pressure, tested with 4.5 mm nail PS - Average value of four tests must not be lower than 1,100 newtons, tested with 3.0 mm nail
C	Conductive footwear	< 0.1 M $\Omega$
CI	Insulation against cold	In an environment of minus 17°C for 30 minutes, the insole surface temperature should not have declined by more than 10°C
AN	Ankle protection	The ankle areas shall be protected at least on the outer side of the footwear
E	Energy absorption	> 20J
HI	Insulation against heat	The environment is 150 °C for 30 minutes, the insole surface temperature should not rise above 22 °C
HRO	Resistance to hot contact up to 300°C	When exposed to high temperatures up to 300 °C of the surface, there should be no broken soles
WPA	Water penetration and water absorption resistant upper	Water penetration time > 30 min Water absorption after 20% $\leq$ 30min Permeable volume $\leq$ 3g / h Water vapor permeability $\geq$ 0.8mg/cm2h
LG	Ladder grip	To offer better foothold on ladders, the outsole of a safety shoe must have a transverse profile with a height of at least 1.5 mm in the arch area
FO	Fuel oil resistance	The shoe sole's resistance to hydrocarbons (oils, petrol, etc.)
M	Metatarsal protection	The metatarsal protective device shall be such that, under impact, the resulting forces are distributed over the outsole, the toecap and as large a surface of the foot as possible
WR	Water resistance	Protection classes, S6 and S7, for waterproof footwear: S6 = the footwear meets the requirements of class S2 and is also waterproof (WR) S7 = the footwear meets the requirements of class S3 and is also waterproof (WR)



# European Standard High Visibility Clothing

## Minimum area with visibility materials m<sup>2</sup>

	Class 1	Class 2	Class 3
Fluorescent material	0,14	0,50	0,80
Reflective material	0,10	0,13	0,20

X => The number shown next to the graphic symbol indicates the class of the garment according to the table. You will find the certification class printed on the care label inside the product.

EN ISO 20471



## EN ISO 20471:2013

- Safety and visibility are important parts of reducing accidents in the workplace. This standard specifies requirements and test methods for visibility clothing. The workwear must be CE-tested and certified by an accredited certification institute.
- The workwear is marked as EN ISO 20471:2013 and the fluorescent and reflective areas are divided into three different classes. The certification class of the garment is based on the area of visible materials and can be either class 1, 2 or 3. The certification class shall be marked within the workwear.
- If the maximum number of washes are not specified in the care instructions, the articles have been tested after five washes. The lifespan of the garment depends on i.e. use, care, and storage. Regular and proper care of the workwear provides best performance.
- The high visibility protective product shall not be covered by any other garment or equipment. And even if a high visibility garment is used, the user will not be visible in all conditions. If the workwear is dirty, its performance will be impaired. Follow the care instructions inside the high visibility workwear to maintain its properties.

# Hi-vis T-shirt

#400100



XS – 4XL (00 - 07)

EN ISO 20471 Class 1

Very comfortable High-Visibility T-shirt with stretch. The fabric has UV protection, and the main part is in bamboo, which is pleasant to the skin, moisture-wicking and breathable, plus it helps to reduce unpleasant odours.

- Safety-class: EN ISO 20471 Class 1
- Colours: Black / Hi-vis Yellow
- Specifications: 55% Bamboo / 45% Polyester 180g, UV protection
- Reflective material: Two 5 cm reflective stripes around torso, one 5 cm reflective stripe around upper arm, reflective material on both shoulders



# Hi-vis Sweatshirt

#400200



XS – 4XL (00 - 07)

EN ISO 20471 Class 1

Thick and solid Sweatshirt which warms on chilly days. The cotton fabric ventilates well and provides high comfort and good insulation whenever needed. It works just as well as an outer garment as an insulating layer.

- Safety-class: EN ISO 20471 Class 1
- Colours: Black / Hi-vis Yellow
- Specifications: 100% Cotton 320g black, 100% Polyester 300g Hi-vis yellow
- Reflective material: Two 5 cm transfer reflective stripes around torso and each arm, reflective material on both shoulders





# Hi-vis Paclite Jacket #400300



XS – 4XL (00 - 07)

EN ISO 20471 Class 3

A very light, breathable and pack-friendly shell jacket that provides maximum visibility in combination with protection against wind. Certified as class 3 in all sizes. It works just as well in the workplace as during various outdoor activities.

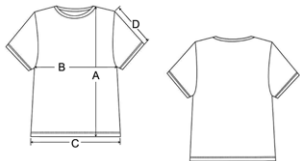
- Safety-class: EN ISO 20471 Class 3
- Colours: Hi-vis Yellow
- Specifications: 100% Polyester Ribstop, soft fleece inner-collar, YKK front-zip, two front pockets with zippers, one inner pocket with zip, drawstring at hem, ID card D-ring
- Reflective material: Two 6 cm transfer reflective stripes around torso and each arm, reflective material on both shoulders



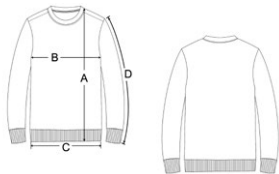


# Size Charts - Unisex

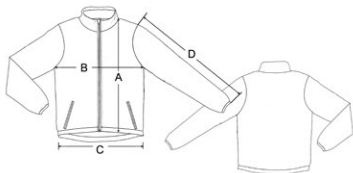
## Workwear:



T-SHIRT	XS	S	M	L	XL	2XL	3XL	4XL
A) Body length	65	67	70	72	75	78	81	84
B) 1/2 Chest	43	47	51	55	59	63	67	71
C) 1/2 Bottom	43	47	51	55	59	63	67	71
D) Sleeve length	21	21	21.5	21.5	22	22	22.5	22.5



SWEATSHIRT	XS	S	M	L	XL	2XL	3XL	4XL
A) Body length	68	70	72	74	76	78	80	82
B) 1/2 Chest	47	51	55	58	62	66	70	74
C) 1/2 Bottom	42	45	48	52	56	59	62	65
D) Sleeve length	59	60.5	62	63.5	65	66.5	67	67.5



JACKET	XS	S	M	L	XL	2XL	3XL	4XL
A) Front length	64.5	67	70.5	72	73.5	75	76.5	78.5
B) 1/2 Chest	49.5	52.5	55.5	58.5	61.5	64.5	67.5	70.5
C) 1/2 Bottom	49	52	55	58	61	64	67	70
D) Sleeve length	66	67	69	70	71	72	73	74

## Footwear:

DESCRIPTION	SIZE / MEASUREMENT (mm)											
EUR size	36	37	38	39	40	41	42	43	44	45	46	47
Insole-length Aluminium Toecap	231	239	248	256	265	273	281	290	298	307	315	324
Insole-length Composite Toecap	233	241	249	257	265	273	281	289	297	305	313	321

**Iron  
Steel**<sup>®</sup>  
SCANDINAVIA



**Ironsteel Scandinavia AS**

Org. no. NO-924 487 437

[www.ironsteel.no](http://www.ironsteel.no)

[post@ironsteel.no](mailto:post@ironsteel.no)

[www.ironsteelscandinavia.com](http://www.ironsteelscandinavia.com)

[post@ironsteelscandinavia.com](mailto:post@ironsteelscandinavia.com)