THE ULTIMATE PERFORMANCE IN PROTECTION AND COMFORT

COMFORT AND SAFETY SOLUTIONS

CONSTRUCTION & INFRA
Comfort, Durability & Safety

Working in Construction & Infra often means walking and standing on a wet and uneven surface. These surfaces are often slippery and you run a high risk of slips & trips. This demands proper footwear.

Research among end-users indicated that there are 4 Key Elements of Comfort:

1) Most important is the demand for protection and safety. They need footwear that both protects their feet against slips and trips as well as falling / moving objects. The footwear must also protect against slips and trips in contaminated environments.

2) Boots need to be nice and dry: Proper insulating footwear keeps the feet warm and comfortable during 8+ hour working days.

3) Lightweight: Walking an average of 10,000 steps a day, every gram amounts significantly to total moved weight and reducing fatigue.

4) Durability: Higher durability means less wear-in and being able to enjoy the comfort longer. End users associate durability with higher quality.

WHAT ARE BOOTS MADE OF

In general there are three different materials that boots (or Wellingtons) are made of:

1) PVC: Versatile material making it a good entry level solution. Dunlop® offers Acifort® and PVC boots.

2) Rubber: Versatile material. Can create good slip resistance, but with a short durability. The boots are heavy and have poor insulating properties.

3) Polyurethane (PU): Foamed material making boots lighter, more durable and with the best insulating properties. Dunlop® developed Purofort®, a unique process where the raw materials are mixed and injected under high pressure to create a high end ‘PU-boot’.

THE ORIGINAL

Dunlop® has been producing boots since the beginning of the last century. When Dunlop® introduced Polyurethane (PU) into the market, over 30 years ago, it was the start of a new era. The Purofort® Technology was born, and today we refer to this as ‘THE ORIGINAL’.

The Dunlop® solution

Dunlop® uses three different material technologies to deal with the issues in the Construction environment. Purofort® is the best solution for both Slips & Trips and comfort.

• Slips & trips: Purofort® represents the very best in protective footwear. These boots offer the highest level of comfort, safety and durability. The soles are especially constructed for reducing the risk of slips and trips in all situations.

• Comfort: Purofort® boots are lightweight, shock absorbing and flexible due to the unique cell structure. Purofort® also insulates down to -50° Celsius, keeping feet warm and dry.

Check out the full film on www.dunlopboots.com
The Purofort® Technology

Specialised high pressure manufacturing introduces millions of tiny air bubbles into the synthetic material during manufacture. This gives Purofort boots their remarkable properties.

As the graph shows Dunlop® Purofort® is the best solution for nice and dry feet, lightweight, and durability compared to other materials.

Comparative properties:

Protection / Safety
• Different sole patterns prevent clogging on a wide variety of surfaces.
• High slip resistant outsole profile
• Steel toe-cap and midsole for impact/penetration protection
• Resistant to chemicals, blood, oils and fats
• Anti-bacterial treatment

Light Weight
• Lightweight: Save 2.500kg in moving weight per day. As the graph shows Purofort® boots are 35% (500g) lighter than traditional rubber boots. Walking 10,000 steps a day saving 250 grams per boot amounts to 2.500kg a day.
• Nice and dry: -20° Celsius for Purofort®, -50° Celsius for Thermo+
• Flexible and supple even at very low temperatures
• Shock absorbing
• Gender specific fit

Durable
• Tested in lab and in practice: Lasts up to 3 times longer than traditional boots
• High abrasion resistant
• Wear and tear resistant

The Purofort® Technology

Dunlop® Purofort® Thermo+
EN ISO 20345:2011 S5 CI SRC
37/38, 39/40, 41-43, 44/45, 46-48
Lightweight, cold insulation down to -50° Celsius, excellent shock absorbing, slip resistance SRC

Sole and footbed design

PUROFORT+

Purofort®+ is the next generation of Purofort® boots and utilises all the benefits of the current Purofort® range combined with a contemporary design and added safety features to ensure that your feet are dry, safe, warm and healthy. Purofort®+ is specially designed for professional use.

The Dunlop® Purofort®+ offers:
1) Improved fit for optimal comfort
2) Anatomically shaped footbed
3) Increased room in toe area
4) Better grip with specially designed dirt repellent outsole and additional slip resistant insert
5) Tear resistant upper

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The Ultimate Performance in Protection and Comfort
**Improved features**

**ACIFORT Technology**

Acifort® = Acid + Comfort. Is a mixture of PVC and Rubber and especially developed for each individual industry. The unique combination of PVC, Nitrile rubber and polymers create a longer lasting, more durable and comfortable boot. Acifort® compounds are constructed from 3 different components:

- **Antistatic components**
- **Nitrile rubber** creates a more comfortable boot. It ensures a longer lifetime, better resistance to oil, chemicals and wear down.
- **Polymers** guarantees the maximum lifetime for PVC boots

**Protection**

- **SRA-slip resistant outsoles** for different environments
- **SS & S4 safety standards:** with steel toe cap and midsole
- **Antistatic:** Reduce the risk of electrocution
- **Highly resistant** to the widest variety of chemicals and acids

**Comfort**

- **Energy absorbing properties** make these boots more comfortable than standard PVC boots
- **Lightest boot in the mid-segment**
- **New finer lining offering a more comfortable and luxurious feel**
- **Sanitized lining for a healthy climate and prevention of odour in the boot**

**Durability**

- **Improvement in compound** ensures 50% more durability than traditional PVC

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**ELEMENTS INFLUENCING SLIP POTENTIAL**

*source: http://www.hse.gov.uk/food/slips.htm

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**REACH compliant:** All Dunlop® boots are produced according to the latest REACH Norm and do not contain any kind of forbidden Phthalate.

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**THE ULTIMATE PERFORMANCE IN PROTECTION AND COMFORT**
**Dunlop® Acifort® High Voltage**

**ACIFORT**

Dunlop® Acifort® High Voltage boots comply with the European Directive for Personal Protective Equipment (PPE Directive, 89/686/EC) which means that a high level of comfort, durability and quality is guaranteed.

They also provide you with a high degree of protection when working on live electrical installations as the boots comply with standards CE03211/EN ISO 20345:2011 SB FO SRA and EN50321 Class 0.

**EN 50321 Class 0**

This means that the Dunlop® Acifort® High Voltage boots offer protection against electrical shocks when working on installations - or parts of installations - that are live. This protection is operative for voltages up to 1000 V AC or up to 1500 V DC. Working on high voltage installations has potential fatal risks. To guarantee the highest levels of safety, boots are tested according to above mentioned standard before receiving the high voltage marking.

<table>
<thead>
<tr>
<th>ARTICLE</th>
<th>DESCRIPTION</th>
<th>NORM</th>
<th>SIZE RANGE</th>
<th>PROPERTIES</th>
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<tr>
<td>A571411</td>
<td>Dunlop® Acifort® Safety High Voltage</td>
<td>EN ISO 20345:2011 SB FO SRA / EN50321 cl. 0</td>
<td>39/40, 41-43, 44/45, 46-47</td>
<td>Protection for voltages up to 1000 V AC or up to 1500 V DC, SRA nonslip</td>
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**Dunlop® Acifort® Ribbed Thigh Wader Full Safety**

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<td>EN ISO 20345:2011 SB CI SRA</td>
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<td>Dunlop® Purofort® Chest Wader Full Safety</td>
<td>EN ISO 20345:2011 SB FO SRA / EN50321 cl. 0</td>
<td>39/40, 41-43, 44/45, 46-47</td>
<td>Protection for voltages up to 1000 V AC or up to 1500 V DC, SRA nonslip</td>
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<td>EN ISO 20345:2011 SB CI SRA</td>
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<td>Extra metatarsal protection, SRA non slip</td>
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**Waders**

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<td>EN ISO 20345:2011 SB FO SRA / EN50321 cl. 0</td>
<td>40-48</td>
<td>Extra metatarsal protection, SRA non slip</td>
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<td>C462840.LI</td>
<td>Dunlop® Purofort® Chest Wader Full Safety</td>
<td>EN ISO 20345:2011 SB CI SRA</td>
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<td>Dunlop® Purofort® Thigh Wader Full Safety</td>
<td>EN ISO 20345:2011 SB FO SRA / EN50321 cl. 0</td>
<td>39/40, 41-43, 44/45, 46-47</td>
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Dunlop® Safety
Always the highest degree of adherence

Dunlop® Protective Footwear aims to meet the highest degree of safety certification needed. This is not an easy feat in a rapidly changing economic and legislative environment.

Different certification standards are prescribed around the world, and Dunlop® products are currently certified for EN, ASTM and CSA. Other certifications are following quickly due to the globalized world economy. Dunlop® always works together with external agencies to certify our waterproof performance boots, at this moment we work closely with TÜV Rheinland, HSE, ASTM, CSA and SATRA to make sure our boots are certified to the highest degree.

In Europe footwear needs to adhere to the EN standard, this standard has recently been updated. At Dunlop® we consider it very important to be up to date on the latest changes, so here an overview of the most recent updates (these periodical updates can also be found on www.dunlopboots.com):

- **Non slip** is a prerequisite in the new standard, so a safety boot needs to be SRA, SRB or SRC
- **The material used may not be harmful to the user.**
- **Safe design requirements have been sharpened.**
- **Insulation must adhere to EN 38031**
- **Oil resistance is optional, not obligatory in the basic certification**
- **Energy absorption in the heel is part of the O4 standard**

The certification has a 5 year lifespan, but a product needs to be completely recertified when changes occur. The year of the last certification needs to be denoted on the footwear to make sure the wearer knows if he/she is fully protected.

The Dunlop® heritage

**INNOVATION**

At Dunlop® we design, develop and manufacture all our own high quality waterproof boots, embracing original expertise with new technology.

**EXPERTISE**

Today, Dunlop® is a pan European market leader specialising in waterproof general purpose and professional work boots. We help improve the lives of around 10 million feet across the world each day. Dunlop® merged with the Dutch footwear specialist Hevea bv in 1996 to combine knowledge and skill and together we have developed the unique Purofort® material technology.

The company is a fusion of businesses whose roots go back through the Netherlands, United Kingdom, Ireland and Portugal: a strong combination of experiences, expertise and manufacturing capability originating from different climates, cultures and markets.

**TRADITION IN PERFORMANCE**

Years of tradition have gone into Dunlop® waterproof work boots, originally founded in the 19th Century by a veterinary surgeon, Sir John Boyd Dunlop. John Boyd Dunlop, John Boyd had a simple idea that changed the world.

In 1888 he patented the pneumatic rubber tyre, opening his first tyre plant in Dublin, Ireland in 1889. His development revolutionized the industry.
Boot properties

S5-CERTIFIED
SB-CERTIFIED
S4-CERTIFIED
O4-CERTIFIED
CE-CERTIFIED
PROTECTIVE TOECAP + MIDSOLE
WATERPROOF
SLIP RESISTANT OUTSOLE
OIL RESISTANT OUTSOLE
COLD INSULATION
CHEMICAL RESISTANT
ANTISTATIC
COMFORT
ENERGY ABSORBING

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