

# Monitoring the slip resistance of emerging workplace footwear

Prepared by the **Health and Safety Laboratory**  
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## 3 RESULTS AND DISCUSSION

### 3.1 RAMP TEST RESULTS

All results are interpreted in accordance with the current UKSRG guidelines (Issue 3, 2005) for classification as having a high, moderate or low potential for pedestrian slip. Throughout this report these are colour coded red, amber and green respectively. Table 1 shows the CoFs for the three different bands (high, moderate and low) of slip potential.

**Table 1.** CoF bands for high, moderate and low slip potentials

Ramp Coefficient of Friction	Slip Potential
0 – 0.24	High Slip Potential
0.25 – 0.35	Moderate Slip Potential
0.36 +	Low Slip Potential

#### 3.1.1 Steel and water ramp testing

30 new pairs of footwear were ramp tested. Table 2 shows these results along with previous results for safety, protective and occupational footwear. 10 pairs of footwear tested previously are no longer in production so these have been removed from the list.

**Table 2.** Ramp results for all of the shoes on steel with water contamination. (red represents a high slip potential, amber represents a moderate slip potential and green represents a low slip potential). ♣ = new since last report

Shoe	Shoe Type	Marketed As Slip Resistant	Sole Construction (where known)	Steel / Water CoF
Shoes For Crews (Easy clean grid pattern)	Slip-On Shoe	Yes	Weltd Rubber	0.54
Shoes For Crews (SFC3)	Dress shoe, Boot, Trainer, Wellington. Toe protection available	Yes	Weltd Rubber	0.52
Agrip Wellington	Wellington. Toe protection	Yes	Rubber	0.52
Hyper V Sole Spider Max Black	Trainer and Wellington. Toe protection	Yes	Rubber	0.51
Crocs Bistro ♣	Slip-on Clog	Yes		0.46
Keuka Café	Shoe, Boot, Trainer. Toe protection	Yes	Rubber	0.41
Saftetrax ♣		Yes		0.43
Dickies Skate Shoe	Trainer	Yes	Rubber	0.43
Dickies Sport Low-Cut Trainer	Trainer	Yes	Rubber	0.41
Slip Grips – Spider Grip sole (5332)	Shoe, Boot, Slip-on. Toe protection	Yes	Rubber	0.41
Wat-Out 58167	Slip-on Boot	No	P.U.	0.39
TredSafe (Chef)	Slip-on shoe. Other styles are available.	Yes	Rubber	0.38
Dunlop Purofort – High Grip	Wellington. Toe protection	Yes	Nitrile Rubber??	0.38

Shoe	Shoe Type	Marketed As Slip Resistant	Sole Construction (where known)	Steel / Water CoF
Arco Safety Stop	♣ Slip-on, trainer, dress shoe, boot. Toe protection available	Yes	Rubber	0.38
Cat Supremacy Boot	♣ Boot. Toe/ mid sole protection	Yes	Rubber	0.38
V6 Powerwear (V6000)	Safety Boot/. Toe / Mid-sole protection.	No	Thermo Plastic Urethane / P. U.	0.37
Goliath Atomium (Atom63)	Slip-on ankle boot, slip- on shoe, trainer. Toe protection	Yes	Dual Density P.U.	0.37
Bata Industrials (Thor 705-69911)	Safety Boot. Toe / Mid-sole protection.	No	Dual Density P.U.	0.37
Steitz Secura SST8	♣ Shoe. Toe protection available	Yes		0.36
Magnum Duty Lite	♣ Shoe. Toe protection available	Yes	Rubber	0.36
Uvex Classic (8451.9) – Ultra Grip sole	Safety Boot. Toe protection	No	Nitrile Rubber Outer / P. U. Core	0.36
V6 Powergrip V6115 Chukka	♣ Boot	No		0.36
Forma Oilmaster	Boot	No		0.35
Bata Safemaster	Wellington. Toe / Midsole protection	Yes	Nitrile Rubber	0.34
Emma Venus	Shoe. Toe protection	No	Dual Density P.U.	0.34
ABS (ABS220P)	Shoe, Boot. Toe protection available	Yes	P.U.	0.33
Keuka Café Overshoe	Overshoe	Yes	Rubber	0.33
Tuskers 632 Unisex Safety Shoe	Shoe, slip-on. Toe protection	Yes	Single Density P.U.	0.33
V6 Powergrip V6806 Polar	♣ Rigger Boot.	No	Dual layer P.U.	0.33
Centek (FS140)	Rigger Boot. Toe / Midsole protection	No		0.32
Uvex Quattro – (8411.2)	Safety Boot. Toe / Midsole protection	No	Nitrile Rubber Outer / P. U. Core	0.32
Otter 93609	Shoe. Toe protection	No	Thermo Plastic Urethane / P.U.	0.32
Globe Trotter Rigger Boot, Contract Range	Rigger Boot. Toe / Midsole protection	No	Dual Density P.U.	0.32
Lightyear ST650	♣	No		0.32
Fusion Platon	♣ Bike Boot	Yes	Vulcanised Rubber	0.32
Aimont Aster	♣ Shoe	No	Light P.U.	0.32
Abeba Clog	Slip-on Clog	Yes	P.U.	0.31
Arco Sanyderm – Cofra Aderplus sole (6641)	Slip-on shoe. Toe protection. Other styles are available.	Yes	Single Density P.U.	0.31
Click Boot CDDCMSBL	♣ Boot	No	Dual Density P.U.	0.31
Panoply Sault S3	♣ Boot	Yes	Dual Density P.U, Studded Sole	0.31
Solemate 195051	♣ Boot	Yes		0.30
Aimont Dahlia	♣ Shoe	No	Light P.U.	0.30