

EUROPEAN

SAFETY STANDARDS

EN ISO 20345:2012

Safety footwear are shoes certified according to EN ISO 20345:2011. Provided with a toe cap protection, which protective action is tested by an energy of 200 joule, for high stress. The toe cap protection can be made of steel, aluminium or composite.

SAFETY SHOES ACCORDING TO EN ISO 20345:2011						
SYMBOL	REQUIREMENT	SB	S1	S1P	S2	S3
SRA/SRB/SRC	Slip resistance	☉	☉	☉	☉	☉
-	Toe cap protection	☉	☉	☉	☉	☉
P	Anti-Penetration Midsole			☉		☉
-	closed heel area	open heel area possible	☉	☉	☉	☉
FO	Fuel resistance of the sole		☉	☉	☉	☉
A	Antistatic properties		☉	☉	☉	☉
E	Energy absorption capacity in the heel area		☉	☉	☉	☉
WRU	Water resistant upper				☉	☉
-	profiled outsole					☉

Additional requirements:

- HRO:** Heat Resistance Outsole
- SRA:** Slip resistance on clay tile surface which has been lubricated with a wetting agent (Sodium Laurel Sulphate)
- SRB:** Slip resistance on stainless steel surface which has been lubricated with glycerol.
- SRC:** Slip resistance category SRA + SRB
- WR:** Water resistance
- CI:** Cold Insulation
- ESD:** ESD equipment according to DIN EN 61340 with an bleeder resistor in the range of >100 kilohm up to <35 megaohm
- DGUV:** ideal for wearers of orthotic insoles, according to DGUV-rule 112-191

EN ISO 20347:2012

OCCUPATIONAL SHOES WITHOUT TOECAP PROTECTION.



BASIC REQUIREMENTS

e.g. concerning tear strength and water-repellent properties of the upper as well as substance, tear strength, abrasion resistance, resistance to flex cracking the outsole. Can be with open seat region.
(Occupational Basic - OB)



SAFETY CLASS O1

as OB, additionally closed heel area, antistatic, energy absorption of the heel area.

Appropriate for use in **DRY AREAS.**



SAFETY CLASS O2

as O1, additionally water resistant properties.

Appropriate for use in **WET AREAS.**

NEW

EUROPEAN

SAFETY STANDARDS

EN ISO 20345:2022

The norm DIN EN ISO 20345 defines the requirements for safety shoes and was revised in June 2022. Safety footwear are shoes certified according to EN ISO 20345:2011. Provided with a toe cap protection, which protective action is tested by an energy of 200 joule, for high stress. The toe cap protection can be made of steel, aluminium or composite.

SAFETY SHOES ACCORDING TO EN ISO 20345:2022											
SYMBOL	REQUIREMENT	SB	S1	S2	S3	S3L	S3S	S6	S7	S7L	S7S
-	Basic requirements	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉
-	Slip resistance on ceramic tilefloors with NaLS	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉
-	closed seat region	○	☉	☉	☉	☉	☉	☉	☉	☉	☉
A	antistatic properties	○	☉	☉	☉	☉	☉	☉	☉	☉	☉
E	energy absorption of seat region	○	☉	☉	☉	☉	☉	☉	☉	☉	☉
NEW WPA	Water penetration and absorption	○	○	☉	☉	☉	☉	☉	☉	☉	☉
NEW P	Perforation resistance: metalinsert	○	○	○	☉	—	—	○	☉	—	—
NEW PL	Perforation resistance: non-metal insert4,5 mm nail	○	○	○	—	☉	—	○	—	☉	—
NEW PS	Perforation resistance: non-metal insert3,0 mm nail	○	○	○	—	—	☉	○	—	—	☉
-	cleated outsole	○	○	○	☉	☉	☉	○	☉	☉	☉

Additional requirements:

- C** Conductivity
- HI** Heat Insulation
- CI** Cold Insulation
- M** Metatarsal protection
- AN** Ankle protection
- CR** Cut resistance
- NEW SC** Scuff Cap abrasion
- WR** Water resistance
- ∅** Slipresistance not tested (e.g. shoes with metal spikes)
- NEW SR** Slip Resistance clay tile surfac / glycerol.
- HRO** Heat Resistance Outsole
- FO** Resistance to Fuel and Oil
- NEW LG** Ladder Grip
- ESD** ESD equipment according to DIN EN 61340 with an bleeder resistor in the range of >100 kilohm up to <35 megaohm
- DGUV** ideal for wearers of orthotic insoles, according to DGUV-rule 112-191