



HRO SOLE

Area of use*



PUBLIC WORKS



HEAVY INDUSTRIE



LIGHT INDUSTRIY



MAINTENANCE

Technical features

Low cut safety shoes.

Upper: water repellent pigmented leather.

Lining: textile.

Tongue: comfortable padding, with gusset.

Toe cap: steel shockproof 200J.

Insole: EVA fabric, antistatic.

Pierce resistant midsole: steel.

Sole: nitrile rubber, H.R.O.

Weight: 660 g (Approximative weight of a shoe, size 42).

Sizes: 39 to 47.

Colour: black and red.

Packaging: carton of 10 pairs.

Subpackaging: individual box.

Advantages

- > **H.R.O Sole:** contact heat resistant outsole compound.
- > **High resistance** thanks to steel toe cap and pierce resistant midsole.
- > **Reduces shocks** with PU and energy absorbing heel.



Certification

This product complies with **European Regulation (EU) 2016/425** on Personal Protective Equipment (PPE). **Category II**. Issued by **SGS**, notified body n°**0598**.

EN ISO 20345 : 2011 (S3 HRO SRC)



CE

Download the EU declaration of conformity on <http://docs.singer.fr>

STANDARDS

EN ISO 20344	Personal protective equipment: Test methods for footwear.
EN ISO 20345	Safety footwear: Toe protection against shocks (200 J) and the risks of flattening (15 kN).
EN ISO 20346	Protective shoes: Toe protection against shocks (100 J) and the risks of flattening (10 kN).
EN ISO 20347	Occupational footwear: No specification about toe protection.

SLIP RESISTANCE

SRA	On ceramic tile floor with SLS.
SRB	On steel floor with glycerol.
SRC	SRA + SRB

EN ISO 20345 - OPTIONAL REQUIREMENTS

E	Heel energy absorption
P	Anti-puncture sole
CR	Cut resistance of the upper
M	Metatarsal protection
C	Conductive sole
A	Antistatic footwear
HI	Insulation against heat
CI	Insulation against cold
HRO	Heat resistant outsole compound
WRU	Water penetration and water absorption resistance of the upper
WR	Water resistance of the whole footwear
I	Insulating shoes
AN	Malleoli protection

USED MATERIAL CLASS

Class I	All leather and other materials (except for all rubber or all polymer)
Class II	All rubber (fully vulcanised) or all polymer (fully moulded).








EN 61340-4-3 - ELECTROSTATIC

Shoes that cover this standard are «dissipative». This standard defines the shoes that protect electronic equipment against an electrostatic discharge.
Electrical resistance: $< 1 \Omega \times 10^9$. Antistatic shoes are not necessarily ESD.

EN ISO 20345 - SHOES CLASS

SB	Classe I ou II	Basic properties
S1	Classe I	Basic properties + Closed backpart + Antistatic properties + Energy absorption of the heel + Resistance to fuel oil
S2	Classe I	Basic properties + Closed backpart + Antistatic properties + Energy absorption of the heel + Resistance to fuel oil + Water penetration resistance + Water absorption resistance
S3	Classe I	Basic properties + Closed backpart + Antistatic properties + Energy absorption of the heel + Resistance to fuel oil + Water penetration resistance + Water absorption resistance + Anti-puncture sole + Studded sole
S4	Classe II	Basic properties + Closed backpart + Antistatic properties + Energy absorption of the heel + Resistance to fuel oil
S5	Classe II	Basic properties + Closed backpart + Antistatic properties + Energy absorption of the heel + Resistance to fuel oil + Anti-puncture sole + Studded sole

ADVANTAGES

	Slip resistance
	Studded sole
	Resistance to fuel oil
	Antistatic properties
	Shockproof composite toe cap (200J)
	Shockproof steel toe cap (200J)
	Antiperforation high tenacity textile sole (1100N)
	Antiperforation steel sole (1100N)
	Water penetration resistance
	Energy absorption of the heel