

# TECHNICAL DATA SHEET

Name

**HV YPSILON S1**

Code

**61122 S1 FO SR**

Product Range



Standard

S1 FO SR

EN ISO

20345:2022

Weight

495 grams  
(1 shoe in size 42)

Size range

35 <-> 50

Mondopoint

10,5

Packaging

10 pairs/carton  
(same size)

## TECHNICAL SPECIFICATIONS



## SOLE

## SOLE FEATURES



DOUBLE FORMULA® soles feature a morpho-anatomical design, blending light, flexible PU foam midsoles with durable, grippy outsoles made of compact PU.



## PROTECTIVE ELEMENTS



Heat-treated and epoxy-coated safety toe cap withstands impacts up to 200 Joules and compressions up to 15 kN. Stainless steel fibers increase durability and beveled edges enhance comfort.

## UPPER



Crafted from premium leather and treated for a velvety touch, combines softness with resilience for daily work.

## LINING



Three-layer wear-resistant lining featuring a microchannel network for unparalleled breathability and antimicrobial properties to prevent odors and microorganism growth.

## FOOTBED



Antistatic and anti-odour removable insole with SANITIZED® technology ensuring hygiene and a fresh feeling all day.

## EXTRA



## SAFETY TECHNICAL SPECIFICATIONS

Description	Measurement Unit	Requirement	Test Result
<b>TOE CAP:</b> Impact resistance	mm	≥ 14	18
<b>TOE CAP:</b> Compression resistance	mm	≥ 14	20,5
<b>ANTI-PUNCTURE PLATE:</b> Penetration resistance	N	≥ 1.100	-
<b>FOOTWEAR:</b> Antistatic properties (in wet condition)	MΩ	≥ 0,1	4,7
<b>FOOTWEAR:</b> Antistatic properties (in dry condition)	MΩ	≤ 1.000	111
<b>UPPER:</b> Water vapour permeability	mg/cm2*h	≥ 0,8	9,6
<b>UPPER:</b> Water vapour coefficient	mg/cm2	≥ 15	84,9
<b>UPPER:</b> Water penetration after 60 min	g	≤ 0,2	-
<b>UPPER:</b> Water absorption after 60 min	%	≤ 30	-
<b>INTERNAL LINING:</b> Water vapour permeability	mg/(cm2*h)	≥ 2,0	130,7
<b>INTERNAL LINING:</b> Water vapour coefficient	mg/cm2	≥ 20	1045,8
<b>OUTSOLE:</b> Abrasion resistance	mm3	≤ 150	62
<b>OUTSOLE:</b> Energy absorption of seat region (E)	J	≥ 20	40
<b>OUTSOLE:</b> Flexural resistance	mm	≤ 4	0
<b>OUTSOLE:</b> Interlayer bond strength	N/mm	≥ 4	6,3
<b>OUTSOLE:</b> Resistance to fuel oil (FO)	%	≤ 12	3,9

## ADDITIONAL FEATURES

Test	Measurement Unit	Requirement	Results
<b>Electrical resistance for ESD footwear</b> <small>Requirements IEC 61340-5-1:2016</small>	mA	≤ 1,00	-
<b>Resistance to hot contact (HRO)</b>	-	outsoles shall not melt and develop any cracks when bent	-
<b>Cold insulation of outsole complex (CI) 30min/-17°C</b> <small>(temperature decrease on the upper surface of the insock)</small>	°C	≤ 10	-
<b>Heat insulation of outsole complex (HI) 30min/150°C</b>	°C	≤ 22	-
<b>Water resistance (WR)</b> <small>(Total wetted area inside the footwear)</small>	cm2	after 80 min.	-
<b>Electric hazard resistance (EH) 18kV / 60 Hz</b> <small>(Electric flux)</small>	MΩ	≤ 100	-

## STORAGE, CARE AND MAINTENANCE

- PANDA SAFETY footwear should be stored in original packaging, storage temperature should not exceed 35°C, humidity should be less than 80% and without the influence of direct sunlight.
- Sandals, shoes and boots should be cleaned after each use; dry off the shoes, not in proximity to or in direct contact with stoves or other sources of heat.
- Carry out the periodic treatment of the uppers with suitable products containing wax, grease, silicone, etc.
- Avoid contact with aggressive chemicals and extreme temperatures.
- Verify the good state before each use.

## SOLE DESIGN AND PERFORMANCE



ENERGY ABSORPTION COEFFICIENT IN THE HEEL AREA



## INDUSTRIES

