



EN ISO 20345:2022

Class: S3S FO SR ESD  
 Sizes: 38-47  
 Instep: 12  
 Weight (±10%): **591 gr.** (\*)

## TECHNICAL SHEET ART. ENERGY

**Description:** low shoe in blue STRETCH-TEX with padded storm-cuff, 100% polyester lining, non-metallic HRP Insole, DYNAMIC Insole, antistatic, breathable, double density polyurethane sole, bending resistant, abrasion resistant, oil resistant, slip resistant, ESD

**Plus:** midsole compound particularly studied to get a soft PU density for a higher comfort

**Suggested sectors of usage:** Mechanical industry, Servicing, Logistics / Packaging, Professionals / Craftsmen

**Care and Maintenance:** clean periodically the outsole and the upper with non-aggressive substances which could compromise quality, safety and durability of the shoe, do not dry close to direct heat source



Complete shoe	Norm	Description	Unit	Results	EN ISO 20345 requirements	
<b>Toe Cap:</b> aluminum toe cap, impact resistant 200 J	5.3.2.6	Impact resistance	mm	17,5	≥ 14	
	5.3.2.7	Compression resistance	mm	22	≥ 14	
<b>Midsole:</b> non-metallic HRP Insole with high tenacity fibres multi layers, polyester composition, perforation resistant	6.2.1	Perforation resistance (single value)	N	1.200	≥ 950	
		Average value		1.330	≥ 1.100	
<b>Insole:</b> DYNAMIC, anatomic, antistatic, antibacterial and ESD	5.7.3	Water absorption	Mg/cm <sup>2</sup>	228	≥ 70	
		Water desorption		92%	≥ 80%	
<b>ESD footwear:</b> dissipation capacity of the electrostatic charge	EN ISO 61340-5-1	Electrical resistance for ESD footwear	Mohm	51,7	< 100	
<b>Capacity of Energy Absorption in the heel area</b>	6.2.4	Energy absorption in the heel area	J	33	≥ 20	
<b>Upper:</b> Blue STRETCH-TEX with padded storm-cuff	5.4.6	Water vapour permeability	mg/cm <sup>2</sup> · h	20,6	≥ 0,8	
		Water vapour coefficient	mg/cm <sup>2</sup>	165,1	≥ 15	
	5.4.3	Tear strength	N	376	≥ 60	
<b>Vamp/Quarter Lining:</b> honeycomb 100% finished polyester, breathable, abrasion resistant	5.5.4	Water vapour permeability	mg/cm <sup>2</sup> · h	122,2	≥ 2	
		Water vapour coefficient	mg/cm <sup>2</sup>	977,6	≥ 20	
	5.5.2	Tear strength	N	57	≥ 15	
	5.5.3	Abrasion resistance (dry)	cycles	no holes	25.600	
		Abrasion resistance (wet)	cycles	no holes	12.800	
<b>Sole:</b> double density polyurethane, bending resistant, abrasion resistant, oil resistant, slip resistant, ESD, with COMFY-BOOST insert	5.8.3	Tear strength	kN/m	21,1	≥ 8	
	5.8.4	Abrasion resistance (black)	mm <sup>3</sup>	73	≤ 150	
	5.8.5	Bending resistance	mm	0	≤ 4	
	5.8.6	Hydrolysis	mm	0	≤ 6	
	6.4.2	Hydrocarbons resistance (volume increase)	%	4,3%	≤ 12%	
	6.2.10	Slip resistance on ceramic glycerine (SR)	heel forward 7°		0,22	≥ 0,19
			tip back 7°		0,25	≥ 0,22

In model ENERGY and its components there is no presence of dangerous substances by Annex XVII to regulation no. 1907/2006/CE and subsequent amendments and additions

(\*) = Indicative weight that refers to ½ pair in size 42