

## TECHNICAL SHEET



Article: **B0505 OSMIO**  
Norm: **EN ISO 20345:2011**  
Safety Class: **SB E A FO SRC**

Footwear height: **Mod. A, H 70 mm (< 113 mm; Rif. EN ISO 20345-5.2.2)**

Width: **11**

Construction: **STROBEL; MONO-DENSITY PU -**

Cleaning and maintenance: **Use only soft brushes and water. Do not use substances like alcohol, thinners, gasoline, oil or any other chemicals. Keep the footwear, dry and clean, in a proper place at room temperature.**

Suggested fields: **Food industry, chemical-pharmaceutical industry, health field.**

Entire footwear: components					
Component	Description	Value	Norm requirements	EN 20345	
Steel toe-cap	Impact resistance(200 J)				
	<ul style="list-style-type: none"> <li>Free height after impact</li> </ul>	14 mm	≥ 14 mm	5.3.2.3	
	Compression resistance (15 kN)				
	<ul style="list-style-type: none"> <li>Free height after compression</li> </ul>	14,5 mm	≥ 14 mm	5.3.2.4	
Sole (SRC)	Slip resistance				
	<ul style="list-style-type: none"> <li>SRA – Sole (entire sole)</li> </ul>	0,38	≥ 0,32	5.3.5.4	
	<ul style="list-style-type: none"> <li>SRA – Heel (Angle of 7°)</li> </ul>	0,35	≥ 0,28	5.3.5.4	
	<ul style="list-style-type: none"> <li>SRB – Sole (entire sole)</li> </ul>	0,18	≥ 0,18	5.3.5.4	
	<ul style="list-style-type: none"> <li>SRB – Heel (Angle of 7°)</li> </ul>	0,13	≥ 0,13	5.3.5.4	
(P)	Puncture resistance	N/A	≥ 1100 N	6.2.1.1.2	
Footbed (A)	Antistatic properties				
	<ul style="list-style-type: none"> <li>Electrical resistance</li> </ul>	Dry: 10,0 x 10 <sup>8</sup> Ω Humid: 9,29 x 10 <sup>8</sup> Ω	≥ 10 <sup>5</sup> Ω , ≤ 10 <sup>9</sup> Ω ≥ 10 <sup>5</sup> Ω , ≤ 10 <sup>9</sup> Ω	6.2.2.2 6.2.2.2	
Sole/Upper	Thermal insulation				
	Heat (HI)	Insole temperature increase	N/A	≤ 22°C	6.2.3.1
	Cold (CI)	Insole temperature decrease	N/A	≤ 10°C	6.2.3.2
Heel (E)	Shock-absorption in the heel region	32 J	≥ 20 J	6.2.4	
(WR)	Water resistance (Water absorption)	N/A	≤ 3 cm <sup>2</sup>	6.2.5	
(M)	Metatarsal protection	N/A	≥ 40 mm	6.2.6	

Upper				
Component	Description	Value	Norm requirements	EN 20345
	Tear resistance	90 N	≥ 60 N	5.4.3
	Traction resistance	N/A	≥ 15 N/mm <sup>2</sup>	5.4.4
Microfibre	Water steam permeability	1,5 mg/cm <sup>2</sup> h	≥ 0.8 mg/cm <sup>2</sup> h	5.4.6
	pH value	N/A	≥ 3,2	5.4.7
	Chromium VI	Not detected	Not detectable	5.4.9
	Water passed	N/A	≤ 0.2 g	6.3
	Water absorption	N/A	≤ 30%	6.3

Lining				
Component	Description	Value	Norm requirements	EN 20345
3D hi-tech fabrics	Tear resistance	30 N	≥ 15 N	5.5.1
	Abrasion resistance	<ul style="list-style-type: none"> <li>Dry: the surface shows no holes</li> <li>Humid: the surface shows no holes</li> </ul>	No holes till 51.200 cycles	5.5.2
	Water steam permeability	7,2 mg/cm <sup>2</sup> h	≥ 2,0 mg/cm <sup>2</sup> h	5.5.3
	pH value	N/A	Not detectable	5.5.4
	Chromium VI	N/A	Not detectable	5.5.5

Insole				
Component	Description	Value	Norm requirements	EN 20345
TNT	Thickness	2 mm	≥ 2,0 mm	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	92mg/cm <sup>2</sup>	≥ 70 mg/cm <sup>2</sup>	5.7.3
	Water release	90%	≥ 80 %	5.7.3
	Abrasion resistance (after 400 cycles)	No damage	Damage ≤to norms reference	5.7.4.1
	Chromium VI	N/A	Not detectable	5.7.5

Removable footbed				
Component	Description	Value	Norm requirements	EN 20345
Anatomical, breathable, textile and expanded polymeric material	Thickness	3,5±0,5 mm	N/A	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	Permeable	Permeable or ≥ 70mg/cm <sup>2</sup>	5.7.3
	Water release	Permeable	Permeable or ≥ 80%	5.7.3
	Abrasion resistance	No damage	Dry: no holes till 25600 cycles; humid: no holes till 12800 cycles	5.7.4.2
	Chromium VI	N/A	Not detectable	5.7.5

Sole					
Component	Description	Value	Norm requirements	EN 20345	
PU monodensity sole	Sole thickness without profiles	10 mm	≥ 4 mm	5.8.1.1	
	Profile height	4 mm	≥ 2,5mm	5.8.1.3	
	Tear resistance	6,3 kN/m	≥ 5 kN/m	5.8.2	
	Abrasion resistance	<ul style="list-style-type: none"> <li>Relative volume loss</li> </ul>	165 mm <sup>3</sup>	≤ 250 mm <sup>3</sup>	5.8.3
	Flexionresistance	<ul style="list-style-type: none"> <li>Notches increaseafter 30.000 cycles</li> </ul>	3 mm	≤ 4 mm	5.8.4
	Hydrolysis	<ul style="list-style-type: none"> <li>Notches increase after 150.00 cycles</li> </ul>	4,5 mm	≤ 6 mm	5.8.5
	Tread-midsole detachment	N/A	≥ 4 N/mm; (* ) ≥ 3 N/mm with sole ripping	5.8.6	
	(HRO) contact heat resistance (300°C)	N/A	No damage (melting, breaking)	6.4.1	
	(FO) fue lresistance (volume variations)	0,5 %	≤ 12%	6.4.2	

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