

VAHRN – padded jacket

Description	<ul style="list-style-type: none"> • 3M™ Scotchlite™ Reflective Material reflex inserts - 8906 Silver Fabric, • central opening closed with zip and snap, internal and external double flap, • elastic band and coulisse at waistline to enhance adherence of the garment to the body, • hood with Thinsulate™ padding, internal mobile pocket protecting against E-WARD electromagnetic waves, • neck with Thinsulate™ padding and internal fleece lining, • pockets closed by YKK® zip with double slider and snaps. 								
Maintenance	Maximum wash temperature: 30°C; Do not bleach; Do not dry clean; Do not dry in a tumble dryer; Do not iron.  	<table border="1" data-bbox="811 954 1514 1379"> <tr> <td data-bbox="811 954 938 1021"> Item </td><td data-bbox="938 954 1514 1021">V162-0-02 Navy</td></tr> <tr> <td data-bbox="811 1021 938 1313" rowspan="2"> Standards </td><td data-bbox="938 1021 1514 1313"> EN ISO 13688:2013  Icler 0.500(B) 3 X EN 342:2017 </td></tr> <tr> <td data-bbox="938 1313 1514 1379"> Oeko-Tex® Standard 100  Tested for harmful substances. www.oeko-tex.com/standard100 </td></tr> <tr> <td data-bbox="811 1379 938 1379"> Sizes </td><td data-bbox="938 1379 1514 1379">S-4XL</td></tr> </table>	Item	V162-0-02 Navy	Standards	EN ISO 13688:2013  Icler 0.500(B) 3 X EN 342:2017	Oeko-Tex® Standard 100  Tested for harmful substances. www.oeko-tex.com/standard100	Sizes	S-4XL
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SAFETY TECHNICAL SPECIFICATIONS

	Test method	Description	Cofra result	Minimum requirement / range
Background fabric	EN ISO 1833-1977, SECTIONE 10	Composition	100% Nylon Oxford 420 D	
	EN ISO 12127:1996	Weight per unit area	145 g/m ²	
	EN ISO 13688 :2013 4.2 (EN 14362-1)	Search of the aromatic and carcinogenic amines	Not recording	≤30 ppm
	EN ISO 13688:2013 4.2 (EN ISO 3071)	The pH's determination from the watery extract	pH = 5.9	3,5 ≤pH≤ 9,5
	EN ISO 13688:2013 5.3 (ISO 5077)	Dimensional change to washing after 5 washes (30°C)	warp: -1.4% weft: -1.4%	±3%

	EN 342:2017 4.6.1 (EN ISO 4674-1)	Tear strength	warp: 129 N weft: 114 N	>20 N
	ISO 105 E04	Colour fastness to perspiration <i>Colour change</i> <i>Staining:</i> diacetate cotton nylon polyester acrylic wool	Acidic 4-5 4-5 4-5 4-5 4-5 4-5	Alkaline 4-5 4-5 4-5 4-5 4-5 4-5
	ISO 105-C06	Colour fastness to laundering at 40°C <i>Colour change</i> <i>Staining:</i> diacetate cotton nylon polyester acrylic wool	4-5 4-5 4-5 4-5 4-5 4-5	1-5
	ISO 105-X12	Colour fastness to rubbing	Dry: 4-5 Wet: 4-5	1-5
	ISO 105-B02	Colour fastness to light <i>Colour change:</i>	5	1-5
	EN ISO 13934-1	Tensile strength	warp: 1600 N weft: 900 N	
Lining	EN ISO 1833-1977, SECTIONE 10	Composition	100% Polyester	
	EN ISO 12127:1996	Weight per unit area	55 g/m ²	
Pile	EN ISO 1833-1977, SECTIONE 10	Composition	100% Polyester	
	EN ISO 12127:1996	Weight per unit area	280 g/m ²	
Padding	EN ISO 1833-1977, SECTIONE 10	Composition	100% Polyester (Thinsulate®)	
	EN ISO 12127:1996	Weight per unit area	1 layer G150 1 layer G200 350 g/m ²	

Reflex <i>retro reflective fabric</i> <i>D6110</i>	EN ISO 20471:2013/A1:2016 6.1	Retro reflective performance requirements of new material	PASS																																																																																																																																																														
	EN ISO 20471:2013/A1:2016 6.2	Requirements of retro reflective performance after tests for abrasion, flexion, folding at cold temperature, temperature variations, washing (50 cycles ISO 6330 at 60°C) and rain influence.	PASS	$R' \geq 100 \text{ cd/(lx m}^2)$																																																																																																																																																													
Vahrn+Dessel	EN 342:2017 6.3 (EN ISO 15831)	Measurement of thermal insulation by means of a thermal manikin	after 5 washes a 30°C $I_{cler} 0.500 \text{ [m}^2\text{K/W]}$																																																																																																																																																														
	Table B: resultant effective thermal insulation of clothing I_{cler} and ambient temperature conditions for heat balance at different activity levels and duration of exposure																																																																																																																																																																
	<table border="1"> <thead> <tr> <th rowspan="3">thermic insulation I_{cler} [m² K/W]</th> <th colspan="10">moving activity</th> </tr> <tr> <th colspan="2">-</th> <th colspan="2">-</th> <th colspan="2">light</th> <th colspan="2">light</th> <th colspan="2">medium</th> </tr> <tr> <th>75 W/m²</th> <th>75 W/m²</th> <th>115 W/m²</th> <th>115 W/m²</th> <th>170 W/m²</th> <th>170 W/m²</th> </tr> <tr> <th>air speed 0,4 m/s</th> <th>air speed 3 m/s</th> </tr> </thead> <tbody> <tr> <td>8h</td> <td>1h</td> <td>8h</td> <td>1h</td> <td>8h</td> <td>1h</td> <td>8h</td> <td>1h</td> <td>8h</td> <td>1h</td> </tr> <tr> <td>0,265</td> <td>13</td> <td>0</td> <td>19</td> <td>7</td> <td>3</td> <td>-12</td> <td>9</td> <td>-3</td> <td>-12</td> <td>-28</td> <td>-2</td> <td>-16</td> </tr> <tr> <td>0,310</td> <td>10</td> <td>-4</td> <td>17</td> <td>3</td> <td>-2</td> <td>-18</td> <td>6</td> <td>-8</td> <td>-18</td> <td>-36</td> <td>-7</td> <td>-22</td> </tr> <tr> <td>0,390</td> <td>5</td> <td>-12</td> <td>13</td> <td>-3</td> <td>-9</td> <td>-28</td> <td>0</td> <td>-16</td> <td>-29</td> <td>-49</td> <td>-16</td> <td>-33</td> </tr> <tr> <td>0,412</td> <td>3,6</td> <td>-14,2</td> <td>11,4</td> <td>-4,7</td> <td>-11,2</td> <td>-30,8</td> <td>-1,7</td> <td>-18,2</td> <td>-32,0</td> <td>-52,0</td> <td>-18,2</td> <td>-35,8</td> </tr> <tr> <td>0,470</td> <td>0</td> <td>-20</td> <td>7</td> <td>-9</td> <td>-17</td> <td>-38</td> <td>-6</td> <td>-24</td> <td>-40</td> <td>-60</td> <td>-24</td> <td>-43</td> </tr> <tr> <td>0,500</td> <td>-2,1</td> <td>-22,6</td> <td>5,7</td> <td>-11,1</td> <td>-20</td> <td>-41</td> <td>-8,1</td> <td>-26,6</td> <td>-43,8</td> <td>-64,7</td> <td>-27,4</td> <td>-46,8</td> </tr> <tr> <td>0,540</td> <td>-5</td> <td>-26</td> <td>4</td> <td>-14</td> <td>-24</td> <td>-45</td> <td>-11</td> <td>-30</td> <td>-49</td> <td>-71</td> <td>-32</td> <td>-52</td> </tr> <tr> <td>0,620</td> <td>-10</td> <td>-32</td> <td>0</td> <td>-20</td> <td>-31</td> <td>-55</td> <td>-17</td> <td>-38</td> <td>-60</td> <td>-84</td> <td>-40</td> <td>-61</td> </tr> </tbody> </table>										thermic insulation I_{cler} [m ² K/W]	moving activity										-		-		light		light		medium		75 W/m ²	75 W/m ²	115 W/m ²	115 W/m ²	170 W/m ²	170 W/m ²	air speed 0,4 m/s	air speed 3 m/s	air speed 0,4 m/s	air speed 3 m/s	air speed 0,4 m/s	air speed 3 m/s	air speed 0,4 m/s	air speed 3 m/s	air speed 0,4 m/s	air speed 3 m/s	8h	1h	0,265	13	0	19	7	3	-12	9	-3	-12	-28	-2	-16	0,310	10	-4	17	3	-2	-18	6	-8	-18	-36	-7	-22	0,390	5	-12	13	-3	-9	-28	0	-16	-29	-49	-16	-33	0,412	3,6	-14,2	11,4	-4,7	-11,2	-30,8	-1,7	-18,2	-32,0	-52,0	-18,2	-35,8	0,470	0	-20	7	-9	-17	-38	-6	-24	-40	-60	-24	-43	0,500	-2,1	-22,6	5,7	-11,1	-20	-41	-8,1	-26,6	-43,8	-64,7	-27,4	-46,8	0,540	-5	-26	4	-14	-24	-45	-11	-30	-49	-71	-32	-52	0,620	-10	-32	0	-20	-31	-55	-17	-38	-60	-84	-40	-61								
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	EN 342:2017 6.4 (EN ISO 9237)	Determination of the permeability of fabrics to air	after 5 washes a 30°C AP <1mm/s CLASS 3	AP (mm/s) AP>100 5<AP<100 AP<5	CLASS 1 2 3																																																																																																																																																												