

## Espro™ ES72110 Premium 60gsm Type 5/6 Coverall

The Espro™ Premium 60gsm Type 5/6 White Coverall is made from 100% polypropylene and polyethylene film, with film lamination. Our signature coverall features a zip front opening covered by a flap, elasticated at the cuffs, ankles, hood and waist.

### Features

- Microporous film laminated coverall
- Offers quality and hygienic protection
- Cut and sewn seams
- Protects against chemicals and infective agents
- CE Type 5B and 6B - EN 13982-1:2004+A1:2010 (Type 5B) and EN 13034:2005+A1:2009 (Type 6B)



### Suitable for

#### Applications across industries

- Manufacturing
- Food hygiene
- Medical and laboratories
- Automotive
- Dairy factory

### Standards

<p>0624</p>	<p>EN ISO 13982-1:2004+ A1:2010</p> <p>(TYPE 5B)</p>	<p>EN 13034:2005 + A1:2009</p> <p>(TYPE 6B)</p>
<p>EN 1073-2:2002</p>	<p>EN 14126:2003+ AC:2004</p>	<p>EN 1149-5:2018</p>

## Performance of whole suit



Test	Requirement	Result/Class/Conformity																
Resistance to liquid penetration Jet/Spray test type 3/4 (EN ISO 17491-3/4 met. B - EN 14605)	-	PASS																
Resistance to liquid penetration Spray test type 6 (EN ISO 17491-4 met. A - EN 13034)	-	PASS																
Resistance to aerosol penetration Inward leakage type 5 (EN ISO 13982-2 - EN ISO 13982)	IL82/90 ≤ 30% TILS8/10 ≤ 15%	PASS																
Nominal protection factor (EN ISO 13982-2 - EN 1073-2)	<table border="1"> <thead> <tr> <th>Classe</th> <th>TILE %</th> <th>TILA %</th> <th>Fpn</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>0,3</td> <td>0,2</td> <td>500</td> </tr> <tr> <td>2</td> <td>3</td> <td>2</td> <td>50</td> </tr> <tr> <td>1</td> <td>30</td> <td>20</td> <td>5</td> </tr> </tbody> </table>	Classe	TILE %	TILA %	Fpn	3	0,3	0,2	500	2	3	2	50	1	30	20	5	PASS
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3	0,3	0,2	500															
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Practical performance tests (EN 1073-2)	-	PASS																
Seams: Strength (EN ISO 13935-2)	<table border="1"> <tbody> <tr><td>Class 6</td><td>&gt; 500 N</td></tr> <tr><td>Class 5</td><td>&gt; 300 N</td></tr> <tr><td>Class 4</td><td>&gt; 125 N</td></tr> <tr><td>Class 3</td><td>&gt; 75 N</td></tr> <tr><td>Class 2</td><td>&gt; 50 N</td></tr> <tr><td>Class 1</td><td>&gt; 30 N</td></tr> </tbody> </table>	Class 6	> 500 N	Class 5	> 300 N	Class 4	> 125 N	Class 3	> 75 N	Class 2	> 50 N	Class 1	> 30 N	CLASS 3				
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Seams: Permeation by liquids (EN ISO 6529-EN 14605)	<table border="1"> <tbody> <tr><td>Class 6</td><td>&gt; 480 min</td></tr> <tr><td>Class 5</td><td>&gt; 240 min</td></tr> <tr><td>Class 4</td><td>&gt; 120 min</td></tr> <tr><td>Class 3</td><td>&gt; 60 min</td></tr> <tr><td>Class 2</td><td>&gt; 30 min</td></tr> <tr><td>Class 1</td><td>&gt; 10 min</td></tr> </tbody> </table>	Class 6	> 480 min	Class 5	> 240 min	Class 4	> 120 min	Class 3	> 60 min	Class 2	> 30 min	Class 1	> 10 min	NA				
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Size	Chest (cm)	Height (cm)
S	86-94	158-166
M	94-102	166-174
L	102-110	174-182
XL	110-118	182-190
XXL	118-129	190-198
XXXL	129-141	198-206

## Performance of fabric

Test	Requirement	Result/Class/Conformity														
Resistance to penetration of liquid (EN ISO 6530 - EN 13034)	<table border="1"> <tbody> <tr><td>Class 3</td><td>&lt; 1%</td></tr> <tr><td>Class 2</td><td>&lt; 5%</td></tr> <tr><td>Class 1</td><td>&lt; 10%</td></tr> </tbody> </table>	Class 3	< 1%	Class 2	< 5%	Class 1	< 10%	<table border="1"> <tbody> <tr><td>H<sub>2</sub>SO<sub>4</sub> 30%:</td><td>CLASS 3</td></tr> <tr><td>NaOH 10%:</td><td>CLASS 3</td></tr> <tr><td>o-xilene:</td><td>CLASS 3</td></tr> <tr><td>Butan- 1-ol:</td><td>CLASS 3</td></tr> </tbody> </table>	H <sub>2</sub> SO <sub>4</sub> 30%:	CLASS 3	NaOH 10%:	CLASS 3	o-xilene:	CLASS 3	Butan- 1-ol:	CLASS 3
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Repellency to liquid (EN ISO 6530 - EN 13034)	<table border="1"> <tbody> <tr><td>Class 3</td><td>95%</td></tr> <tr><td>Class 2</td><td>90%</td></tr> <tr><td>Class 1</td><td>80%</td></tr> </tbody> </table>	Class 3	95%	Class 2	90%	Class 1	80%	<table border="1"> <tbody> <tr><td>H<sub>2</sub>SO<sub>4</sub> 30%:</td><td>CLASS 3</td></tr> <tr><td>NaOH 10%:</td><td>CLASS 3</td></tr> <tr><td>o-xilene:</td><td>CLASS 2</td></tr> <tr><td>Butan- 1-ol:</td><td>CLASS 3</td></tr> </tbody> </table>	H <sub>2</sub> SO <sub>4</sub> 30%:	CLASS 3	NaOH 10%:	CLASS 3	o-xilene:	CLASS 2	Butan- 1-ol:	CLASS 3
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Abrasion Resistance (EN530 - method 2)	<table border="1"> <tbody> <tr><td>Class 6</td><td>&gt;2000 cycles</td></tr> <tr><td>Class 5</td><td>&gt;1500 cycles</td></tr> <tr><td>Class 4</td><td>&gt;1000 cycles</td></tr> <tr><td>Class 3</td><td>&gt;500 cycles</td></tr> <tr><td>Class 2</td><td>&gt;100 cycles</td></tr> <tr><td>Class 1</td><td>&gt;10 cycles</td></tr> </tbody> </table>	Class 6	>2000 cycles	Class 5	>1500 cycles	Class 4	>1000 cycles	Class 3	>500 cycles	Class 2	>100 cycles	Class 1	>10 cycles	CLASS 2		
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Trapezoidal tear resistance (EN ISO 9073-4 - EN 1073-2)	<table border="1"> <tbody> <tr><td>Class 6</td><td>&gt; 150 N</td></tr> <tr><td>Class 5</td><td>&gt; 80 N</td></tr> <tr><td>Class 4</td><td>&gt; 40 N</td></tr> <tr><td>Class 3</td><td>&gt; 20 N</td></tr> <tr><td>Class 2</td><td>&gt; 10 N</td></tr> <tr><td>Class 1</td><td>&gt; 2 N</td></tr> </tbody> </table>	Class 6	> 150 N	Class 5	> 80 N	Class 4	> 40 N	Class 3	> 20 N	Class 2	> 10 N	Class 1	> 2 N	CLASS 3		
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Tensile strength (EN ISO 13934- 1)	<table border="1"> <tbody> <tr><td>Class 6</td><td>&gt; 1000 N</td></tr> <tr><td>Class 5</td><td>&gt; 500 N</td></tr> <tr><td>Class 4</td><td>&gt; 250 N</td></tr> <tr><td>Class 3</td><td>&gt; 100 N</td></tr> <tr><td>Class 2</td><td>&gt; 60 N</td></tr> <tr><td>Class 1</td><td>&gt; 30 N</td></tr> </tbody> </table>	Class 6	> 1000 N	Class 5	> 500 N	Class 4	> 250 N	Class 3	> 100 N	Class 2	> 60 N	Class 1	> 30 N	CLASS 1		
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Puncture resistance (EN 863 - EN 1073-2)	<table border="1"> <tbody> <tr><td>Class 6</td><td>&gt; 250 N</td></tr> <tr><td>Class 5</td><td>&gt; 150 N</td></tr> <tr><td>Class 4</td><td>&gt; 100 N</td></tr> <tr><td>Class 3</td><td>&gt; 50 N</td></tr> <tr><td>Class 2</td><td>&gt; 10 N</td></tr> </tbody> </table>	Class 6	> 250 N	Class 5	> 150 N	Class 4	> 100 N	Class 3	> 50 N	Class 2	> 10 N	CLASS 2				
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Test	Requirement	Result/Class/Conformity
Puncture resistance (EN 863 - EN 13034)	Class 6 > 250 N Class 5 > 150 N Class 4 > 100 N Class 3 > 50 N Class 2 > 10 N Class 1 > 5 N	CLASS 2
Flex cracking resistance (EN 7854)	Class 6 > 100 000 c Class 5 > 40 000 c Class 4 > 15 000 c Class 3 > 5 000 c Class 2 > 2 500 c Class 1 > 1000 c	CLASS 6
Blocking resistance (EN 25978 - EN 1073-2)	-	PASS
Ignition and flammability (EN 13274-4 - EN 1073-2)	-	PASS
Permeation by liquids (EN ISO 6529 - EN 14605)	Class 6 > 480 min Class 5 > 240 min Class 4 > 120 min Class 3 > 60 min Class 2 > 30 min Class 1 > 10 min	NA
Electric surface resistance / Charge decay (ANSI/ESD STM 21:2013 – test condition EN 1149- 1)	$\leq 2.5 \times 10^9$ $t_{50} < 4s$	PASS

## EN 14126:2003+AC:2004

Test	Requirement	Result/Class/Conformity
Resistance to penetration by blood-borne pathogens - phi- x174 bacteriophage test - ISO 16603/16604	Class 6 20 kPa Class 5 14 kPa Class 4 7 kPa Class 3 3,5 kPa Class 2 1,75 kPa Class 1 0 kPa	6
Resistance to penetration by infective agents due to mechanical contact with substances containing contaminated liquids - ISO 22610 (test microorganism: staphylococcus aureus)	Class 6 $t > 75$ Class 5 $60 < t \leq 75$ Class 4 $45 < t \leq 60$ Class 3 $30 < t \leq 45$ Class 2 $15 < t \leq 30$ Class 1 $\leq 15$ min	6
Resistance to penetration by contaminated liquid aerosols - ISO DIS 22611 (test microorganism: staphylococcus aureus)	Class 3 $\log > 5$ Class 2 $3 < \log \leq 5$ Class 1 $1 < \log \leq 3$	3
Resistance to penetration by contaminated liquid aerosols - ISO DIS 22611 (test microorganism: staphylococcus aureus)	Class 3 $\log > 5$ Class 2 $3 < \log \leq 5$ Class 1 $1 < \log \leq 3$	3
Resistance to penetration by contaminated solid particles - EN ISO 22612 (test microorganism: spores of Bacillus subtilis)	Class 3 $\leq 1$ Class 2 $1 < \log ufc \leq 2$ Class 1 $2 < \log ufc \leq 3$	3

## EN ISO 13688:2013

Test	Requirement	Result/Class/Conformity
pH (EN 340 – ISO 3071)	$3.5 > \text{pH} > 9.5$	PASS
Amines (EN 340 – ISO 3071)	-	PASS BLUE COLOUR