

**User Instructions;**

**87371- CaluGuard Pro Cool overall with hood**

Sizes L, XL, 2XL, 3XL Download the EU declaration of conformity via [www.carellurvink.nl](http://www.carellurvink.nl) (search for "87371")

**A. Usage:**

This overall has been manufactured with the greatest care and is suitable for:

- Protection against airborne solid particles (type 5)
- Limited protective performance against light spray, liquid aerosol or low pressure, low volume splashes (type 6)
- Radioactive contaminated particles (no radiation) (Class 1)

Detailed information on the protection provided is given in this manual. The overalls comply with the European Regulation EU 2016/425 (Personal Protective Equipment) and are marked accordingly. The overall is not suitable for any needed level of protection which is not mentioned above. Exposure to certain chemicals or high concentrations may require higher barrier properties, either in terms of the performances of material or in the construction of the suit. The user shall be the sole judge of the suitability for the type of protection required and the correct combination of overall and additional equipment. CLL B.V. is not liable in case of improper issue or use of the product, assess the residual risks present in the workplace to determine whether this overall suitable for your specific application.

**B. Precautions for use:**

1. The protection characteristics are valid only if the overall is correctly used, dressed and closed, please follow the instructions 'way of dressing'.
2. This type of overall is flammable, keep away from fire.
3. Abandon the workplace immediately in case of damaged clothing.
4. The user shall not take of the protective clothing when still presence in a risk area.
5. Prolonged wearing of chemical protective clothing can cause heat stress.
6. Antistatic properties:
  - The user wearing the electrostatic protective clothing must be properly grounded. The resistance between the person skin and the earth will have to be less than 108  $\Omega$ , for example by wearing suitable footwear on dissipative or conductive floors.
  - Electrostatic dissipative clothing shall not be opened or removed whilst in presence of flammable or explosive atmospheres or while handling flammable or explosive substances. Electrostatic dissipative protective clothing is intended to be worn in zones 1, 2, 20, 21 and 22 (See EN 60079-10-1 [7] and EN 60079-10-2 [8]) in which the minimum ignition energy of any explosive atmosphere is not less than 0,016mJ
  - Electrostatic protective clothing may not be used in an oxygen-enriched atmosphere, or in zone 0 (see EN 60079-10-1 [7]) without prior permission from the responsible safety engineer.
  - The electrostatic dissipative performance of the electrostatic dissipative protective clothing can be affected by wear, washing and possible contamination.
  - The electrostatic dissipative protective clothing shall be worn in such way that it is permanently covering all non-conforming materials during normal use (including bending and movement).

**C. Way of dressing:**

1. Ensure that the overall size (see neck label) matches the user's measurements (see size chart below).  
Do not make any changes to the product.
2. Always check the coverall for errors or imperfections (holes or unsewn parts) before use.  
If the coverall shows imperfections, tears or holes before or during use, stop working immediately, leave the workplace and put on a new overall.
3. Open the zipper, put on the overall very carefully. Be careful not to break the material and seams.
4. Close the zipper and remove the protective layer from the adhesive strip of the zipper flap.

**D. Way of dressing (continue):**

5. Do not put the adhesive part right on the zipper but place the zipper flap carefully straight over the zipper and push the adhesive part firmly on the space next to the zipper in order to create a good seal. Make sure there is not any fold in the connection between the coverall and the adhesive part of the zipper flap.
6. In case of airborne solid particles, it is recommended to tighten up the ends of the sleeves and trouser legs with adhesive tape in order to prevent particles from penetrating under the protective clothing.
7. Protect exposed parts of the body (hands, respiratory areas, feet) with protective gloves, footwear, possibly a mask, etc. Attach these to the coverall with adhesive tape where necessary, ensuring that an adequate seal and level of protection is obtained.

**D. Sizes:**

Available sizes: (see necklabel)	Chest user (cm)	Length user (cm)
L	100 – 108	176 – 182
XL	108 – 116	182 – 188
2XL	116 – 124	188 – 194
3XL	124 – 132	194 – 200






TS: in case of special sizes: the exact dimensions are shown on the neck label. (special sizes can only be purchased via a special order; please contact Carel Lurvink via [info@carellurvink.nl](mailto:info@carellurvink.nl) to discuss the possibilities).

**E. Composition / Allergies:**

Some overalls may contain substances that can cause allergies in people who are particularly sensitive to them, resulting in irritation and / or contact allergic reactions. If you suspect an allergy, consult a doctor or dermatologist. Attention; this product may contain traces of natural rubber latex which may cause allergic reactions.

**F. Transport, storage, shelf life, service life and maintenance:**

1. Transport and store in the original packaging in a cool and dry place.
2. Keep away from ozone sources, heat sources and open flames.
3. Overalls can be used within five years after production (see neck label for production date).
4. The product is a disposable item and intended for single use.
5. Maintenance:

				
Don't wash	Don't bleach	Don't iron	Don't tubler dry	Don't Dry wash






**G. Waste Handling:**

During use, the coveralls can become contaminated with pollutants or other hazardous materials, a contaminated overall must be treated as such and disposed of. Observe the local regulations when disposing of and processing the overalls.

**H. Warranty and damage limitation:**

CLL B.V. guarantees the conformity of this product with the technical standard data of CLL B.V. on the date of delivery to the customer. Except as prohibited by law, this warranty is provided in lieu of any other warranty, including any warranties of fitness for a particular use; the responsibility of CLL B.V. is limited to reimbursing the cost price of the product in question. The purchasers and users of the product accept these warranty terms and conditions, which cannot be modified by any other agreement, whether oral or written.

**I. Marking and performance of this overall:**

 <p><b>0624</b></p>	<p><b>Reg. EU 2016/425 (PPE):</b> Personal Protective Equipment <b>Category 3 (CE III)</b></p> <p>The EU-type-examination certificate is issued by: Regular inspection (Reg. EU 2016/425, module C2) is carried out by: <b>Centrocot (I.D 0624)</b> (Centro Tessile Cotoniero e Abbigliamento S.p.A.), P.zza Sant'Anna, 2, 21052 Busto Arsizio (VA), Italy</p>
 <p><b>Type 5</b></p>	<p><b>EN ISO 13982-1:2004+A1:2010</b> This coverall is in accordance with this standard, protection against airborne solid particles has been proven (type 5).</p>
 <p><b>Type 6</b></p>	<p><b>EN 13034:2005+A1:2009</b> This coverall is in accordance with this standard, limited protection against liquid chemicals has been proven (type 6).</p>
 <p><b>Class 1</b></p>	<p><b>EN 1073-2:2002</b> This coverall is in accordance with this standard, protection against radioactive contaminated particles (no radiation) is proven. (Class 1)</p>
	<p><b>EN 1149-5:2018</b> Material and design requirements for dissipative protective clothing, conformity to this standard is proven.</p>
	<p><b>EN ISO 13688:2013+A1:2021</b> General requirements for protective clothing, conformity to this standard is proven.</p>

**Performance – test results and classes**

During the EU-type-examination process several test results were examined, the relevant test results are shown below.

Tests on the whole suit				
Light spray test (EN 13034 – EN ISO 17491-4)	No stains on the witness coveralls		pass	
Tensile strength on seams (EN ISO 13935-2)	89 N		3/6	
Tests on the fabrics	Result	Class	Result	Class
<b>Resistance to liquid penetration (EN 13034 + EN ISO 13982-1 + EN 1073-2)</b>				
H <sub>2</sub> SO <sub>4</sub> 30%	<1 %	3/3	<1 %	3/3
NaOH 10%	<1 %	3/3	<1 %	3/3
o-xylene	<1 %	3/3	21,5 %	N.C.
Butan-1-ol	<1 %	3/3	17,1 %	N.C.
<b>Repellency to Liquid (EN ISO 6530 – EN 13034)</b>				
H <sub>2</sub> SO <sub>4</sub> 30%	95,0 %	3/3	92,4 %	2/3
NaOH 10%	95,1 %	3/3	96,7 %	3/3
o-xylene	91,9 %	2/3	3,4 %	N.C.
Butan-1-ol	94,2 %	2/3	18,6 %	N.C.
Other tests:				
Abrasion Resistance (EN 530 method 2)	300 cycles	2/6	>100 cycles	2/6
Trapezoidal tear resistance (EN ISO 9073-4)	45,3 N <i>weft</i> 26,5 N <i>warp</i>	2/6	33,8 N <i>weft</i> 68,0 N <i>warp</i>	3/6
Tensile strength (EN ISO 13934-1)	100 N <i>weft</i> 55 N <i>warp</i>	1/6	54 N <i>weft</i> 120 N <i>warp</i>	1/6
Puncture resistance (EN 863)	14,4 N	2/6	10,4 N	2/6
Flex cracking resistance (EN ISO 7854 method B)	No damage after 100.000 c.	6/6	>15.000 c.	4/6

Other tests (continue):	WHITE material (microporous)		BLUE material (SMS)	
	Result	Class	Result	Class
Resistance to aerosol penetration. Inward leakage type 5 (EN ISO 13982-2 – EN ISO 13982)	Ljmn 82/90 ≤30 % Ls 8/10 ≤15 % N.p.f. 35,5	pass class 1	Ljmn82/90≤30% Ls 8/10 ≤15 % N.p.f. 8	pass class 1
Practical performance tests (EN 1073-2)		pass		pass
Surface resistance (EN 1149-1)	<2.5 x 10 <sup>9</sup> Ω	pass	<7.3 x 10 <sup>7</sup> Ω	pass
Surface resistance (EN 1149-3)	No result		T <sub>50</sub> <4 s – S > 0.2	pass
pH (EN 340 – ISO 3071)	7.0 fabric 7.3 finger loop	pass	6.3 (blue) 7.1 (white) 9.0 (red)	pass
Aromatic amines derived from azo dyes (UNI EN 14362-1:2012+UNI EN ISO 13688:2013 Par.4.2)	< 1 mg/kg	pass	< 1 mg/kg	pass
Color fastness to perspiration (standard..?)	No result		5	pass
Resistance to penetration by blood-borne pathogens - <i>phi-x174</i> bacteriophage test – ISO 16603/16604	20 kPa	6/6	No result	
Resistance to penetration by infective agents due to mechanical contact with substances containing contaminated liquids - ISO 22610 (test microorganism: <i>staphylococcus aureus</i> )	t > 75 min	6/6	No result	
Resistance to penetration by contaminated liquid aerosols - ISO DIS 22611 (test microorganism: <i>staphylococcus aureus</i> )	log > 5	3/3	No result	
Resistance to penetration by contaminated solid particles - EN ISO 22612 (test microorganism: spores of <i>Bacillus subtilis</i> )	log CFU ≤ 1	3/3	No result	

**Please note:**

- The information above does not represent exactly the actual duration of the given protection in the working environment. The tests were done under laboratory-conditions which maybe are different for the conditions during the actually use of the overall.
- It is recommended to verify that the overall is suitable for the intended use because the conditions at the workplace may differ from the type of test, depending on temperature, wear, etc.
- The test results are only applicable on the tested parameter. The effect of a chemical substance can be different when the substance is used in a mixture.
- During use of the coverall (due to movement, snagging, rubbing, degradation due to contact with chemicals, etc) the physical (and protective) properties may decrease. This can significantly shorten the actual useful life of the product.

**J. More information:**

Carel Lurvink: quality products for safety and hygiene at work.  
For more information, visit [www.carellurvink.nl](http://www.carellurvink.nl) or visit our service center in Enschede (NL).

Do you have questions? Please send an email to our specialists at [info@carellurvink.nl](mailto:info@carellurvink.nl) or call +31 53-434 4343.

**Everyone deserves a clean and safe work environment**