CovTech™
365 Series
Premium Disposable Coveralls

Type 5 Particle
EN 13982

Type 6 Chemical
EN 13034

Anti-static
EN 1149.1

Radioactive
EN 1073-2

Anti-viral
ASTM F1671
What is CovTech™?

CovTech™ Premium coveralls are limited life disposable coveralls providing increased personal protection, from both hazardous particulates and potential chemical hazards.

Certification
Benchmark* ID3346 certifies CovTech™ CT365P for type 5 and type 6 protection.

* Benchmark/BSI is the largest recognized international certification body which covers ongoing certification of PPE items
What is CovTech™?

The fabric used in the manufacture for CovTech™ premium coveralls is 65gm/sq meter, breathable and anti-static material.

The standard design CovTech™ coverall consists of a one-piece garment with hood. Seams are bound and sewn 8+/−1 stitches per inch. Hood, wrists, waist and ankles are elasticised. Reinforced crotch pleats and heavy duty zipper cover flap with self-adhesive strip.
Fabric Design Components

CovTech™ Coverall

Fabric – CovTech Premium, 65gm/sq meter, Breathable, Anti-Static Fabric
Zip – 75cm Nylon No.3
Thread – 164 DTEX/36F GB/T14460
Elastic – 1/8 x 0.35 Rubber
Self Adhesive Strip - 20mm X 75cm

Self-adhesive strip provides additional particle and chemical hold-out by securely sealing the zipper beneath the cover-flap.
Seam Technology

Serged Seam
Two pieces of material are joined with a thread stitch that interlocks economically.

Applications: Basic protection for most general-purpose applications.

Sewn and Bound Seam
Two pieces of material joined with an overlay of similar material, and chain stitched through all of the layers for increased strength plus holdout of liquids and dry particulates.

Applications: Hazardous particle protection and light splash situations.
**Seam Technology**

**Ultrasonic Welded Seam**
Similar to a bound seam, with additional protection due to the fusion, under heat & pressure, of the material at the seam. No thread (or needle holes) required.

**Applications:** heavy-duty chemical and particle protection.

**Taped Seam**
Two pieces of the same fabric are sewn together. The seam is then overlaid with a barrier tape that is applied under heat and pressure to form a liquid seal.

**Applications:** heavy-duty chemical splash protection and particle protection.
Chemical Penetration Comparison

CovTech™ vs. Other Brand Coverall

CovTech™

Other Brand

BEFORE

Next Slide – AFTER >
Chemical Penetration Comparison

CovTech™ vs. Other Brand Coverall

CovTech™ disposable coverall material provides increased barrier protection against potential chemical hazards.
Features and Benefits

CovTech™ Premium Coveralls. manufactured from premium breathable soft, anti-static 65gm/sqm fabric

- High Structural Strength with Excellent Tensile, Tear and Abrasion Resistance
- Anti-Static (EN1149-1) Helps prevent build-up of Static Electricity, which could present as a major safety risk in certain industries (Petrochemical Industry)
- Breathable (helping prevent heat stress) and providing comfortable working conditions
- Particle Protection – holding out 99% of Fibres and Hazardous Particles greater than 1 Micron
Features and Benefits (continued)

CovTech™ Premium Coverall.
Manufactured from Premium Breathable Soft, Anti-Static 65gm/sqm fabric

- Test Method EN368 offers 100% Protection against:
  A. Pesticide  
  B. Methyl Pentane  
  C. Xylene  
  D. Acetone

- Silicone Free and Ultra Low Linting, ideal for use in Critical Painting Applications and Reducing the Risk of Contamination (Semi-Conductor Industry & Telecommunications)

- The CovTech™ overall is Lightweight, Durable with Superior Soft Comfort. Complete with Elastic Hood, Wrists, Waist, and Ankles and Zipper Cover Flap with Self Adhesive Tape, providing additional protection. Also has reinforcing crotch pleats, providing superior tear resistance and room to move.
Features and Benefits (continued)

CovTech Premium Coverall.
Manufactured from Premium Breathable Soft, Anti-Static 65gm/sqm fabric

Benchmark ID 3346 certifies that CovTech™ coveralls comply with chemical protective clothing Type 6 Limited Chemical Splash and Type 5 Particle Protection, as per Test Certificate Z2152/04 – 3209/04, enabling CovTech™ coveralls to be distributed globally
CovTech™ Breathability

CovTech™ premium coveralls are manufactured using premium soft microporous fabric which denies penetration of liquid & particle molecules from the outer surface & yet allows the vapour molecules to pass from the inside to outside which equates to increased wearer comfort & productivity.
## Material Data

**Product Material:** Microporous non-woven laminate  
**Treatment:** Antistatic

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Metric</th>
<th>Result</th>
<th>Unit</th>
<th>Imperial</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis Weight (Average)</td>
<td>g/m²</td>
<td>65.2</td>
<td></td>
<td>oz/yd²</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Thickness</td>
<td>µm</td>
<td>240-280</td>
<td></td>
<td>mils</td>
<td>10.25</td>
<td></td>
</tr>
<tr>
<td>Breaking Strength Grab MD</td>
<td>N</td>
<td>107.9</td>
<td></td>
<td>lbs</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Breaking Strength Grab CD</td>
<td>N</td>
<td>54.8</td>
<td></td>
<td>lbs</td>
<td>12.14</td>
<td></td>
</tr>
<tr>
<td>Tearing Strength Trapezoid MD</td>
<td>N</td>
<td>62.6</td>
<td></td>
<td>lbs</td>
<td>14.07</td>
<td></td>
</tr>
<tr>
<td>Tearing Strength Trapezoid CD</td>
<td>N</td>
<td>31.0</td>
<td></td>
<td>lbs</td>
<td>6.96</td>
<td></td>
</tr>
<tr>
<td>Tensile Strength at Break MD</td>
<td>g/25mm</td>
<td>4800</td>
<td></td>
<td>oz/in</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>Tensile Strength at Break CD</td>
<td>g/25mm</td>
<td>2850</td>
<td></td>
<td>oz/in</td>
<td>102.13</td>
<td></td>
</tr>
<tr>
<td>Elongation at Break MD</td>
<td>%</td>
<td>80</td>
<td></td>
<td>%</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Elongation at Break CD</td>
<td>%</td>
<td>84</td>
<td></td>
<td>%</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>WVTR</td>
<td>g/m² /24hrs</td>
<td>2966</td>
<td></td>
<td>oz/yd²/24hr</td>
<td>87.46</td>
<td></td>
</tr>
<tr>
<td>Surface Resistivity EN1149</td>
<td>Ω</td>
<td>1.4x10¹⁰</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Burst Resistance ISO2960/1974</td>
<td>kPa</td>
<td>180</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Abrasion Resistance EN530</td>
<td># of cycles</td>
<td>&gt;100</td>
<td></td>
<td># of cycles</td>
<td>&gt;100</td>
<td></td>
</tr>
<tr>
<td>Flex Cracking Resistance ISO7854</td>
<td># of cycles</td>
<td>&gt;100,000</td>
<td></td>
<td># of cycles</td>
<td>&gt;100,000</td>
<td></td>
</tr>
</tbody>
</table>

**MD =** Machine Direction  
**CD =** Cross Direction  
**WVTR =** Water Vapour Transmission  
**N =** Newtons  
**oz/in =** ounces per inch  
**g/m² =** grams per square meter  
**g/25mm =** gram force per 25mm  
**Ω =** ohms  
**µm =** microns
## Material Data (continued)

<table>
<thead>
<tr>
<th>Chemical Repellency</th>
<th>Penetration</th>
<th>Repelled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric Acid 30%</td>
<td>0</td>
<td>98.0</td>
</tr>
<tr>
<td>Sodium Hydroxide 10%</td>
<td>0</td>
<td>98.4</td>
</tr>
<tr>
<td>Isopropanol (Alcohol)</td>
<td>0</td>
<td>96.9</td>
</tr>
<tr>
<td>Water &amp; Detergent</td>
<td>0</td>
<td>99.5</td>
</tr>
<tr>
<td>Xylene (Undiluted)</td>
<td>0</td>
<td>91.8</td>
</tr>
<tr>
<td>Butan-1 (Undiluted)</td>
<td>0</td>
<td>93.8</td>
</tr>
<tr>
<td>Lissapol</td>
<td>0</td>
<td>95.5</td>
</tr>
<tr>
<td>Hydrochloric Acid 35%</td>
<td>0</td>
<td>97.8</td>
</tr>
<tr>
<td>Gasoline</td>
<td>0</td>
<td>86.0</td>
</tr>
<tr>
<td>Motor Oil</td>
<td>0</td>
<td>91.8</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>0</td>
<td>93.1</td>
</tr>
<tr>
<td>Acetic Acid</td>
<td>0</td>
<td>98.7</td>
</tr>
</tbody>
</table>
Flammability: Class 1
This particular classification (under 16CFR 1610) and our certification under EN13274-4 method 3, resistance to ignition are both recognised under ISO 6941-2003 as representing similar performance minimum requirements. CovTech™ 365PHE results "show No drop formation (fusing), is self-extinguishing and has a after-flame time of <5 seconds.

"CovTech™ is not flame resistant and should not be worn near hot surfaces, flame and spark generating processes"

Surface Resistivity – ASTM D257
This particular ASTM reference to fabric surface resistivity performance (fabric antistatic capability) now references EN1149-1 antistatic performance requirements. CovTech™ 365PHE was tested to EN1149-1.

This technical data provided within is based on laboratory test performance criteria performed under controlled conditions.
It is the responsibility of the user of these garments to ascertain the level of exposure of the hazard and the selection of the correct personal protective equipment required for his or her application.

MCR and its distributors assume no obligation or liability in the improper use of CovTech™ Protective Coveralls.
CovTech™ 365 series coveralls are now also certified for:

- Protection against Biological Risk
  EN14126 : 2001

- Protection against Radioactive Contamination
  EN1073-2
<table>
<thead>
<tr>
<th>TEST</th>
<th>Standard</th>
<th>Testing Auth.</th>
<th>Benchmark Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Suit Spray Test (Type 6)</td>
<td>prEN13034</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Whole Suit Particle Resistance (Type 5)</td>
<td>prEN ISO13982-1</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Resistance to Penetration by Liquids</td>
<td>EN368</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Abrasion Resistance</td>
<td>EN530 Mth2</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Flex Cracking Resistance</td>
<td>ISO7854B</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Puncture Resistance</td>
<td>EN863</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Tear Resistance</td>
<td>ISO9073-4</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ISO13934-1</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Resistance to Ignition</td>
<td>EN13274-4 Mth3</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Mass Per Unit Area gm²</td>
<td>EN12127</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Mechanical Design Properties</td>
<td>prEN14325</td>
<td>STFI</td>
<td>ID3346</td>
</tr>
<tr>
<td>Anti-Static Behaviour</td>
<td>EN1149-1</td>
<td></td>
<td>AWTIA Wool Testing Authority</td>
</tr>
</tbody>
</table>
Brand and Part Number

Brand: Cov = Coverall

Tech = Technology

3 = Category 3, PPE of Complex Design

6 = Type 6 Limited Liquid Chemical Splash

5 = Type 5 Solid Particulate Chemical Protection

P = Premium Quality Fabric
<table>
<thead>
<tr>
<th>SIZE</th>
<th>PART#</th>
<th>Chest Metric</th>
<th>Chest Imperial</th>
<th>Height Metric</th>
<th>Height Imperial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small – S</td>
<td>CT365PHE4</td>
<td>84 – 92cm</td>
<td>33” – 36”</td>
<td>162 – 170cm</td>
<td>63” – 66”</td>
</tr>
<tr>
<td>Medium – M</td>
<td>CT365PHE3</td>
<td>92 – 102cm</td>
<td>36” – 40”</td>
<td>168 – 176cm</td>
<td>66” – 69”</td>
</tr>
<tr>
<td>Large – L</td>
<td>CT365PHE2</td>
<td>100 – 108cm</td>
<td>39” – 42”</td>
<td>174 – 182cm</td>
<td>68” – 71”</td>
</tr>
<tr>
<td>X-Large – XL</td>
<td>CT365PHE</td>
<td>108 – 116cm</td>
<td>42” – 45”</td>
<td>180 – 188cm</td>
<td>70” – 74”</td>
</tr>
<tr>
<td>X2 Large – X2</td>
<td>CT365PHE2X2</td>
<td>116 – 124cm</td>
<td>45” – 48”</td>
<td>186 – 194cm</td>
<td>73” – 76”</td>
</tr>
<tr>
<td>X3 Large – X3</td>
<td>CT365PHE2X3</td>
<td>124 – 132cm</td>
<td>48” – 51”</td>
<td>192 – 200cm</td>
<td>75” – 78”</td>
</tr>
<tr>
<td>X4 Large – X4</td>
<td>CT365PHE2X4</td>
<td>132 – 140cm</td>
<td>51” – 55”</td>
<td>198 – 205cm</td>
<td>77” – 80”</td>
</tr>
</tbody>
</table>
CovTech™ CT365 type coveralls come in four styles*

<table>
<thead>
<tr>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT365NO</td>
<td>Open sleeves and ankles, no hood/boots</td>
</tr>
<tr>
<td>CT365NE</td>
<td>Elastic sleeves and ankles, no hood/boots</td>
</tr>
<tr>
<td>CT365PHE</td>
<td>Elastic sleeves and ankles with hood</td>
</tr>
<tr>
<td>CT365AE</td>
<td>Elastic sleeves and ankles with hood and boots</td>
</tr>
<tr>
<td>CTO365PHE</td>
<td>(orange)</td>
</tr>
</tbody>
</table>

*note: Type 5 & 6 only applicable to CT365PHE and CTO365PHE and CT365AE
CovTech™ color coding**

CovTech™ coveralls have four color codes**

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Premium general purpose for industrial applications</td>
</tr>
<tr>
<td>Orange</td>
<td>Additional viral and blood-borne pathogen protection</td>
</tr>
<tr>
<td>Blue</td>
<td>Specific food industry applications</td>
</tr>
<tr>
<td>Green</td>
<td>Spark resistant and some flame retardant properties</td>
</tr>
</tbody>
</table>

** Style and color code combinations will be determined by suitability of use i.e. not all styles will be available in all color codes.
Suitable for a variety of tasks, from working with hazardous dusts through to chemical handling and is especially well suited for critical processes in many industries, including:

- Asbestos removal
- Accident attendance
- Synthetic mineral fibre installation and eradication
- Food and pharmaceutical
- Painting and spraying
- Electronic assembly
- Mining
- Industrial manufacturing and maintenance
Care & Use Instructions

Garment Use
Use only where the risk of chemical exposure is LOW & clearly defined as such. Check the coverall before wearing – if defective do not use.

Limitations of Use
DO NOT use with highly toxic or hazardous chemicals, chemical vapors & gases. Avoid intense heat or direct naked flame, sparks or hot surfaces – CovTech™ Coveralls begin to melt at 120˚C. The user shall be the sole judge for proper use of CovTech™ Coveralls.

Care and Disposal
Do not wash, iron, tumble dry or dry clean. Do not use chlorine based bleaches. After use, dispose of immediately. Method of disposal will depend on the level & type of contamination & government/local regulations. Incineration is the preferred method.

Suitability
Please ensure that CovTech™ Coveralls are suitable for the intended use & comply with regulatory requirements. MCR Safety (Memphis Glove Crews River City) & its distributors accept no responsibility for improper use of CovTech coveralls.
Terms and Definitions

**Weight and Thickness:** Material weights are reported in gram per square meter and thickness in increments of 0.001 inch (mils). Both material weight and thickness are indicators of garment bulk and comfort.

**Anti-static treatment:** Special treatment helps to prevent build-up of static. Electricity which could present a major safety risk in certain industries.

**Particulate Holdout:** The filtration efficiency of a material, measured by the number of particulates per 100 that can be pulled through the material. Reported for 1 micron size particles.

**Penetration Resistance:** Material resistance to liquid penetration is measured using ASTM F903. The outside surface of the material in question is exposed to the test chemical for one hour.
Terms and Definitions (cont’d)

**Permeation Resistance:** ASTM F739 is used to measure the permeation resistance of materials. Permeation is the molecular movement of chemicals through a material. If exposure to chemical vapours is a concern, this data should be analyzed.

**Tensile Strength:** The force required to break a material apart by pulling it from opposing directions. Measured in pounds and is reported in two directions.

**Burst Strength:** The force required to break through material when applied perpendicular to its surface area.

**Tear Resistance:** The force required to tear through a material once a tear has been initiated.

**Puncture (or Snag) Resistance:** The force required to puncture a material with a sharp probe, such as a nail.
Terms and Definitions (cont’d)

**Abrasión Resistance:** Measurement of how quickly a material will wear through when rubbed against a coarse, sandpaper (simulated asphalt) surface.

**Air Permeability:** The ability of a material to freely pass air, measured as the number of cubic feet that can be passed in a square foot of material. Non-breathable materials allow no air permeation. Note: Some materials may report zero air permeability, but may still have breathability.

**Water Vapor Transmission:** In this test the rate in which a material allows transmission of water vapor is measured. The rate is reported as ounces of water that can pass through a square yard of material in one hour. The ability of a material to allow water vapor transmission is related to wearer comfort because body cooling occurs through the evaporation of sweat.
Terms and Definitions (cont’d)

- **Type 5 Particle EN 13982**
  Protection against hazardous dust and dry particles

- **Type 6 Chemical EN 13034**
  Limited chemical splash protection against some hazardous chemicals

- **Anti-static EN1149.1**
  Anti-static protection compliant to European standards

- **Radioactive EN 1073-2**
  Protection against radioactive contamination

- **Anti-viral ASTM F1671**
  Protection against viral and blood-borne pathogens
CovTech™ Summary

- Strong
- Anti-Static
- Breathable
- Particle Protection
- Chemical Splash Protection
- Silicone Free
- Lightweight
- Durable
- Benchmark Certified