4515 Technical Data Sheet

September

3M™ Protective Coverall 4515

Description

The 3M[™] Protective Coverall 4515 is designed to help protect against certain light liquid splashes (Type 6) and hazardous dusts (Type 5).

The key features include:

- Breathable material to help reduce heat build-up and promote comfortable wear
- Elasticized waist, ankles, and wrists for convenience and freedom of movement
- Two-way zipper with storm flap

Materials

· Suit: SMS Polypropylene, White, Red, Orange, Blue

• Zipper: Nylon on Polyester Braid

• Elastic: Neoprene Rubber

• Thread: Polyester

Basis Weight: 50 grams/m²

This product does not contain components made from natural rubber latex.

Approvals

CE approved under PPE Directive (89/686/ECC), Category III.

Article 10 Certification: BTTG Testing & Certification Ltd. Notified Body Number:

0338. Article 11B Supervision: SGS United Kingdom, LTD.

Notified Body Number: 0120.

Comfort and Protection

| Liquid Protection | Type 6 (EN 13034). Whole suit reduced spray test (EN ISO 17491-4-2008)* |
|-------------------|--|
| Dust Protection | Type 5 (EN ISO 13982-1:2004). Inward Leakage results: $L_{_{Jmn,82/90}} <$ 30 %; $L_{_{S,8/10}} <$ 15 %. |
| Nuclear | Radioactive particulates (EN 1073-2:2002), Class 1***. Does not offer protection against radiation. |

^{*} In the whole suit test, liquid spray is applied to the subject for 1 minute. During this time the subject moves gently and is rotated through 360°. A total of 1.88 liters is sprayed from four nozzles. The clothing is allowed to drain for 2 minutes and then the absorbent coverall is inspected for stains which are compared to a calibration stain. Requirement: Passes when the stained area inside is smaller than 3 times the calibration stain area.

Applications and Performance

* For additional chemical penetration and repellency data, please contact your local 3M Technical Service Representative

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|---|-----|-------------------------|--|--|--|
| Non-Hazardous Particulates | Yes | Hazardous Liquid Splash | No* | | |
| Non-Hazardous Liquid Splash | Yes | Hazardous Liquid Spray | No | | |
| Hazardous Dusts and Fibers | Yes | Organic Solvents | No | | |
| Liquid Continuous Contact/Immersion | No | Acids/Alkalis | Yes, if chemical is compatible with suit material* | | |
| Gases and Vapors | No | | | | |

Typical Applications

Typical applications may include insulation installation, asbestos and lead abatement, coal dust in power plants, metal polishing, general powder handling, general industrial clean-up and processing, and granular fertilizer application.

In all cases a risk assessment should be carried out. Users must be trained and have read all *User Instructions*. Use limitations and performance data should be considered to ascertain the protection required. If in doubt, contact a safety professional.

Performance

The table below shows the performance of this product when tested under laboratory conditions. Please note that the tests may not reflect the reality of use and do not account for factors such as excessive heat and mechanical wear.

| Test | Standard | Result | Standard* | Class**/ Result |
|--|--|----------------------|----------------|--------------------|
| Abrasion | ASTM D4157 Cycles to Rupture | No data | EN 530 | Class 1 |
| Flex Cracking | | | ISO 7854 | Class 2 |
| Tear Resistance Trapezoidal | ASTM D5733 (warp direction/fill direction) | 10 lbf / 18 lbf | ISO 9073-4 | Class 1 |
| Tensile Strength | ASTM D751, Section 11, Procedure A (longitude/ traverse) | No data | ISO 13934-1 | Class 1 |
| Puncture Resistance | ASTM D2582 (MD/CD) | 31N / 40N | EN 863 | Class 1 |
| Bursting Resistance | ASTM D751, Section 18 | 35 psi | ISO 13938-1 | Class 1 |
| Resistance to Ignition | CPSC 16 CFR PT 1610 | Class 1 | EN 13274-4 | Pass |
| Seam Strength | ASTM D751, Section 66 (Peak Load/Seam Strength) | 15 lbf / 7 lbf/in | EN ISO 13935-2 | Class 3 |
| Hydrostatic Resistance | ASTM D751, Procedure B | No data | | |
| Repellency to Liquids*** – 30% H ₂ SO ₄ | | | EN ISO 6530 | Class 3 of 3 |
| Liquid Penetration Resistance*** – 30% H ₂ SO ₅ | | | EN ISO 6530 | Class 3 of 3 |
| Repellency to Liquids*** – 10% NaOH | | | EN ISO 6530 | Class 3 of 3 |
| Liquid Penetration Resistance*** – 10% NaOH | | | EN ISO 6530 | Class 3 of 3 |
| Radioactive Particulates | | | EN 1073-2 | Class 1 of 3 |

 $^{^{\}star}$ The standards EN 13034:2005 and EN ISO 13982-1:2004, and EN 1073-2:2002 define performance classes



^{**} All apparel must be suitably grounded for anti-static treatment to be effective. Electrostatic propensity may decrease with wearing time and/or severe conditions.

^{***} Except puncture resistance

^{**} The maximum Class is 6 unless otherwise noted

^{***} The European Standard EN ISO 6530 measures liquid penetration through a fabric and liquid repellency by a fabric. The test simulates exposure to small amounts of chemicals (10 ml) for 1 minute duration only. The penetration index refers to the percentage of the original quantity which penetrates the fabric within 1 minute (in a detector beaker) as a percentage of the original quantity.

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Use Limitations

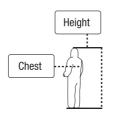
Do not use for:

- · Contact with heavy oils, sparks or flames, or combustible liquids
- Exposure situations resulting in spray or liquid buildup on the suit
- Environments with high mechanical risks (abrasions, tears, cuts)
- Environments with exposure to hazardous substances beyond CE Type 5/6 certification
- · Environments with conditions of excessive heat

Sizing

An appropriate size garment should be selected to allow sufficient movement for the task. Meets ANSI 101-1996 (R2008) sizing guidelines.

| Height | | | Chest | | |
|--------|------------|--------------|------------|--------------|--|
| M | 66 – 69 in | 167 – 176 cm | 36 – 39 in | 92 – 100 cm | |
| L | 69 – 71 in | 174 – 181 cm | 39 – 43 in | 100 – 108 cm | |
| XL | 70 – 74 in | 179 – 187 cm | 43 – 45 in | 108 – 115 cm | |
| XXL | 73 – 76 in | 186 – 194 cm | 45 – 49 in | 115 – 124 cm | |
| 3XL | 76 – 78 in | 194 – 200 cm | 49 – 52 in | 124 – 132 cm | |
| 4XL | 78 – 81 in | 200 – 206 cm | 52 – 55 in | 132 – 140 cm | |



Storage and Disposal

- Store in dry, clean conditions in original packaging
- Store away from direct sunlight, sources of high temperature, and solvent vapors
- \bullet Store within the temperature range -20°C to +25°C (-4°F to +68°F) and with relative humidity below 80%
- Shelf life is three years from date of manufacture when stored as stated above
- Replace garments if damaged, heavily contaminated or in accordance with local work practice
- Handle and dispose of contaminated garments with care and in accordance with national regulations



Limited Use



Do not tumble dry



Do not wash



Do not dry-clean



Do not bleach



Flammable — keep away from sparks or flames



Product must never be altered or modified.

For more information on 3M products and services please contact 3M.

Important Notice

This guide is only an outline. It should not be used as the only means for selecting protective apparel. Before using any protective apparel, the wearer must read and understand the user instructions for each product. Specific country legislation must be observed. If in doubt, contact a safety professional. Sections of the most appropriate PPE will depend on the particular situation and should only be made by a competent person knowledgeable of the actual working conditions and the limitations of PPE.

Final determination as to the suitability of these products for a particular situation is the user's responsibility. This information is subject to revision at any time. Always read and follow all *User Instructions* supplied with your 3M™ Protective Coveralls in order to ensure correct operation. If you have questions contact 3M Technical Service.

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For More Information

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