



TYP30SWHL0

# Tyvek® 500 Accessory

DuPont™ Tyvek® 500 Apron, model PA30L0. Shin-length. Neck and waist ties. White.

| Name             | Description               |
|------------------|---------------------------|
| Full Part Number | TYP30SWHL0                |
| Fabric/Materials | Tyvek®                    |
| Design           | Apron with ties           |
| Seam             | No seams                  |
| Color            | White                     |
| Sizes            | 0                         |
| Quantity/Box     | 100 per box, bulk packed. |

## FEATURES & PRODUCT DETAILS

DuPont™ Tyvek® 500 Apron, model PA30L0. Shin-length apron with neck and waist ties. Available in white and in one size (length 108 cm).

Specially designed for use with Tyvek® apparel, Tyvek® accessories can help offer enhanced protection for body parts that are more exposed to hazardous substances.

Tyvek® garments and accessories are composed of flash spun high density polyethylene, providing an ideal balance of protection, durability and comfort. Tyvek® is permeable to both air and water vapour, yet repels water-based liquids and aerosols. It offers an excellent barrier against fine particles and fibres (down to 1 micron in size), is ultra-low-linting and antistatically treated. Silicon non-added.

Applications include: pharmaceutical handling, chemical protection, lead and asbestos abatement/remediation, general maintenance /operations, spray painting and general clean-up, amongst many others.

- Certified according to Regulation (EU) 2016/425.
- Partial body chemical protective clothing, Category III, Type PB [6-B].
- EN 14126 (barrier to infective agents)
- Antistatic treatment (EN 1149-1) - on both sides; see footnotes

#### **ADDITIONAL EQUIPMENT NEEDED**

- Please read, understand and follow the Instructions For Use
- This garment only provides partial body coverage. It may be worn in combination with other chemical resistant PPE as required based on the hazard assessment.
- Wear other appropriate PPE such as, but not limited to, respiratory, eye, head, hand, and foot protection based on the hazard assessment.

## SIZES

| Product Size | Article Number | Additional info |
|--------------|----------------|-----------------|
| N/A          | D13396088      | One Size        |

## Physical Properties



Data relating to mechanical performance of the fabrics used in DuPont chemical protective clothing, listed for the selected garment according to the test methods and relevant European standard, if applicable. Such properties, including abrasion and flex-cracking resistance, tensile strength and puncture resistance can help in the assessment of protective performance.

| Property                                           | Test Method          | Typical Result              | EN               |
|----------------------------------------------------|----------------------|-----------------------------|------------------|
| Abrasion Resistance <sup>7</sup>                   | EN 530 Method 2      | >100 cycles                 | 2/6 <sup>1</sup> |
| Basis Weight                                       | DIN EN ISO 536       | 41.5 g/m <sup>2</sup>       | N/A              |
| Colour                                             | N/A.                 | White                       | N/A              |
| Exposure to high Temperature                       | N/A.                 | Melting point ~135 °C       | N/A              |
| Flex Cracking Resistance <sup>7</sup>              | EN ISO 7854 Method B | >100000 cycles              | 6/6 <sup>1</sup> |
| Puncture Resistance                                | EN 863               | >10 N                       | 2/6 <sup>1</sup> |
| Resistance to water penetration                    | AATCC 127            | >10 kPa                     | N/A              |
| Surface Resistance at RH 25%, inside <sup>7</sup>  | EN 1149-1            | < 2,5 • 10 <sup>9</sup> Ohm | N/A              |
| Surface Resistance at RH 25%, outside <sup>7</sup> | EN 1149-1            | < 2,5 • 10 <sup>9</sup> Ohm | N/A              |
| Tensile Strength (MD)                              | DIN EN ISO 13934-1   | >60 N                       | 2/6 <sup>1</sup> |
| Tensile Strength (XD)                              | DIN EN ISO 13934-1   | >60 N                       | 2/6 <sup>1</sup> |
| Trapezoidal Tear Resistance (MD)                   | EN ISO 9073-4        | >10 N                       | 1/6 <sup>1</sup> |
| Trapezoidal Tear Resistance (XD)                   | EN ISO 9073-4        | >10 N                       | 1/6 <sup>1</sup> |

1 According to EN 14325 2 According to EN 14126 3 According to EN 1073-2 4 According to EN 14116 12  
According to EN 11612 5 Front Tyvek ® / Back 6 Based on test according to ASTM D-572 7 See Instructions for  
Use for further information, limitations and warnings > Larger than < Smaller than <= Smaller than or equal to N/A  
Not Applicable STD DEV Standard Deviation

COMFORT



The comfort of a protective garment during use is largely determined by its weight, its permeability to vapour and air (breathability) and insulating properties. Data on these attributes is provided according to test method and, as with other data, can be compared by garment.

| Property                         | Test Method | Typical Result | EN  |
|----------------------------------|-------------|----------------|-----|
| Air Permeability (Gurley method) | TAPPI T460  | < 45 s         | N/A |

2 According to EN 14126    5 Front Tyvek ® / Back    > Larger than    < Smaller than    <= Smaller than or equal to    N/A  
Not Applicable

## BIOLOGICAL BARRIER



Detailed information on the protective performance (resistance to penetration) of DuPont clothing when exposed to biologically contaminated aerosols, liquids and dusts as well as blood, body fluids and blood-borne pathogens. Sorted by relevant European standard.

| Property                                                                        | Test Method              | Typical Result       | EN               |
|---------------------------------------------------------------------------------|--------------------------|----------------------|------------------|
| Resistance to Penetration by Biologically Contaminated Aerosols                 | ISO/DIS 22611            | 1 < log ratio<br>< 3 | 1/3 <sup>2</sup> |
| Resistance to Penetration by Blood and Body Fluids using Synthetic Blood        | ISO 16603                | 3,5 kPa              | 3/6 <sup>2</sup> |
| Resistance to Penetration by Blood-borne Pathogens using Bacteriophage Phi-X174 | ISO 16604<br>Procedure C | 1,75 kPa             | 2/6 <sup>2</sup> |
| Resistance to Penetration by Contaminated Liquids                               | EN ISO 22610             | ≤ 15 min             | 1/6 <sup>2</sup> |
| Resistance to Penetration by Contaminated Solid Particles                       | ISO 22612                | 2 < log cfu <<br>3   | 1/3 <sup>2</sup> |

<sup>2</sup> According to EN 14126    > Larger than    < Smaller than    <= Smaller than or equal to

## PENETRATION AND REPELLENCY



A specific test method, EN ISO 6530, is used to measure the indexes of penetration, absorption and repellency of protective clothing material exposed to liquid chemicals. Results listed here reflect the penetration resistance and repellency of DuPont fabrics to 30% sulphuric acid and 10% sodium hydroxide.

| Property                                                     | Test Method | Typical Result | EN               |
|--------------------------------------------------------------|-------------|----------------|------------------|
| Repellency to Liquids, Sodium Hydroxide (10%)                | EN ISO 6530 | >95 %          | 3/3 <sup>1</sup> |
| Repellency to Liquids, Sulphuric Acid (30%)                  | EN ISO 6530 | >95 %          | 3/3 <sup>1</sup> |
| Resistance to Penetration by Liquids, Sodium Hydroxide (10%) | EN ISO 6530 | <1 %           | 3/3 <sup>1</sup> |
| Resistance to Penetration by Liquids, Sulphuric Acid (30%)   | EN ISO 6530 | <1 %           | 3/3 <sup>1</sup> |

<sup>1</sup> According to EN 14325   > Larger than   < Smaller than   <= Smaller than or equal to

GARMENT PERFORMANCE



Information relating to the protective performance of a garment according to European standards where applicable. Includes important characteristics such as protection against radioactive contamination, seam strength and shelf life. Inward leakage and resistance to penetration by liquids, according to the relevant Type classification, are also detailed.

| Property                           | Test Method    | Typical Result        | EN               |
|------------------------------------|----------------|-----------------------|------------------|
| Seam Strength                      | EN ISO 13935-2 | >50 N                 | 2/6 <sup>1</sup> |
| Shelf Life <sup>7</sup>            | N/A.           | 10 years <sup>6</sup> | N/A              |
| Type PB 6: Partial Body Protection | EN 13034       | Pass                  | N/A              |

1 According to EN 14325    3 According to EN 1073-2    12 According to EN 11612    13 According to EN 11611    5 Front Tyvek ® / Back    6 Based on test according to ASTM D-572    7 See Instructions for Use for further information, limitations and warnings    11 Based on the average of 10 suits, 3 activities, 3 probes    > Larger than    < Smaller than    <= Smaller than or equal to    N/A Not Applicable    \* Based on lowest single value

## WARNING

- The information provided herein corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights.
- This garment and/or fabric are not flame resistant and should not be used around heat, open flame, sparks or in potentially flammable environments.
- Working in Ex-Zones: Please take this into account for your risk-assessment that the attached socks may isolate the wearer. There is the possibility that the garment and wearer cannot be grounded via the shoes and other measures for grounding the garment and the wearer are required

## PERMEATION DATA



Permeation is the process by which a solid, liquid or gaseous chemical moves through a protective clothing fabric at a molecular level. Permeation data assist in the selection of the most appropriate protective garment for a particular application and in the estimation of how long it can be safely worn. Standardised test methods are used to determine the resistance of DuPont materials to permeation, the results of which can be selected according to a specific chemical, chemical class or fabric.

| Hazard / Chemical Name                                      | Physical State | CAS        | BT Act | BT 0.1 | BT 1.0 | EN | SSPR    | MDPR   | Cum 480 | Time 150 | ISO |
|-------------------------------------------------------------|----------------|------------|--------|--------|--------|----|---------|--------|---------|----------|-----|
| Acetic acid (30%)                                           | Liquid         | 64-19-7    | imm    | imm    | imm    |    | 13.5    | 0.001  |         |          |     |
| Ammonium hydroxide (16%)                                    | Liquid         | 1336-21-6  | imm    | imm    | imm    |    | 20.3    | 0.005  |         |          |     |
| Ammonium hydroxide (28% - 30%)                              | Liquid         | 1336-21-6  | imm    | imm    | imm    |    | 16.7    | 0.014  |         |          |     |
| Carboplatin (10 mg/ml)                                      | Liquid         | 41575-94-4 | >240   | >240   | >240   | 5  | <0.001  | 0.001  |         |          |     |
| Carmustine (3.3 mg/ml, 10 % Ethanol)                        | Liquid         | 154-93-8   | imm    | imm    | >240   | 5  | <0.3    | 0.001  |         |          |     |
| Caustic ammonia (16%)                                       | Liquid         | 1336-21-6  | imm    | imm    | imm    |    | 20.3    | 0.005  |         |          |     |
| Caustic ammonia (28% - 30%)                                 | Liquid         | 1336-21-6  | imm    | imm    | imm    |    | 16.7    | 0.014  |         |          |     |
| Caustic soda (10%)                                          | Liquid         | 1310-73-2  | >240   | >480   | >480   | 6  | <0.005  | 0.005  |         |          |     |
| Caustic soda (40%)                                          | Liquid         | 1310-73-2  | imm    | >30    | >240   | 5  | <0.005  | 0.005  |         |          |     |
| Caustic soda (50%)                                          | Liquid         | 1310-73-2  | imm    | >30    | >240   | 5  | 0.85    | 0.01   |         |          |     |
| Caustic soda (>95%, solid)                                  | Solid          | 1310-73-2  | >480   | >480   | >480   | 6  | <0.01   | 0.01   |         |          |     |
| Cisplatin (1 mg/ml)                                         | Liquid         | 15663-27-1 | >240   | >240   | >240   | 5  | <0.0002 | 0.0002 |         |          |     |
| Cyclo phosphamide (20 mg/ml)                                | Liquid         | 50-18-0    | >240   | >240   | >240   | 5  | <0.002  | 0.002  |         |          |     |
| Dimethyl sulfate                                            | Liquid         | 77-78-1    | imm    | imm    | imm    |    | >160    | 0.02   |         |          |     |
| Doxorubicin HCl (2 mg/ml)                                   | Liquid         | 25136-40-9 | >240   | >240   | >240   | 5  | <0.003  | 0.003  |         |          |     |
| Ethane 1,2-diol                                             | Liquid         | 107-21-1   | imm    | imm    | imm    |    | 6.6     | 0.002  |         |          |     |
| Ethylene glycol                                             | Liquid         | 107-21-1   | imm    | imm    | imm    |    | 6.6     | 0.002  |         |          |     |
| Etoposide (Toposar®, Teva) (20 mg/ml, 33.2 % (v/v) Ethanol) | Liquid         | 33419-42-0 | >240   | >240   | >240   | 5  | <0.01   | <0.01  |         |          |     |
| Fluorouracil, 5- (50 mg/ml)                                 | Liquid         | 51-21-8    | imm    | imm    | >30    | 2  | na      | 0.001  |         |          |     |
| Formic acid (30%)                                           | Liquid         | 64-18-6    | imm    | imm    | imm    |    | nm      | 0.001  |         |          |     |

|                         |        |            |      |      |      |   |        |       |  |      |   |
|-------------------------|--------|------------|------|------|------|---|--------|-------|--|------|---|
| Ganciclovir (3 mg/ml)   | Liquid | 82410-32-0 | >240 | >240 | >240 | 5 | <0.005 | 0.005 |  |      |   |
| Gemcitabine (38 mg/ml)  | Liquid | 95058-81-4 | imm  | >60  | >240 | 5 | <0.4   | 0.005 |  |      |   |
| Glycerine               | Liquid | 56-81-5    | >240 | >480 | >480 | 6 | 0.03   | 0.01  |  |      |   |
| Glycerol                | Liquid | 56-81-5    | >240 | >480 | >480 | 6 | 0.03   | 0.01  |  |      |   |
| Glycol alcohol          | Liquid | 107-21-1   | imm  | imm  | imm  |   | 6.6    | 0.002 |  |      |   |
| Hydrochloric acid (16%) | Liquid | 7647-01-0  | imm  | imm  | imm  |   | na     | 0.05  |  |      |   |
| Hydrochloric acid (32%) | Liquid | 7647-01-0  | imm  | imm  | imm  |   | na     | 0.05  |  |      |   |
| Hydrogen peroxide (10%) | Liquid | 7722-84-1  | >10  | >10  | >480 | 6 | <0.01  | 0.01  |  |      |   |
| Hydrogen peroxide (30%) | Liquid | 7722-84-1  | imm  | imm  | imm  |   | >0.11  | 0.04  |  |      |   |
| Ifosfamide (50 mg/ml)   | Liquid | 3778-73-2  | imm  | imm  | >240 | 5 | <0.5   | 0.003 |  | >480 | 6 |

| Hazard / Chemical Name                               | Physical State | CAS         | BT Act | BT 0.1 | BT 1.0 | EN | SSPR    | MDPR    | Cum 480 | Time 150 | ISO |
|------------------------------------------------------|----------------|-------------|--------|--------|--------|----|---------|---------|---------|----------|-----|
| Irinotecan (20 mg/ml)                                | Liquid         | 100286-90-6 | imm    | >240   | >240   | 5  | <0.1    | 0.0028  |         |          |     |
| Methotrexate (25 mg/ml, 0.1 N NaOH)                  | Liquid         | 59-05-2     | >240   | >240   | >240   | 5  | <0.001  | 0.001   |         |          |     |
| Mitomycin (0.5 mg/ml)                                | Liquid         | 50-07-7     | >240   | >240   | >240   | 5  | <0.0009 | 0.0009  |         |          |     |
| Nicotine (9 mg/ml)                                   | Liquid         | 54-11-5     | >480   | >480   | >480   | 6  | <0.08   | 0.08    |         |          |     |
| Nitric acid (10%)                                    | Liquid         | 7697-37-2   | >60    | >120   | >480   | 6  | na      | 0.05    |         | >477     | 5   |
| Nitric acid (30%)                                    | Liquid         | 7697-37-2   | imm    | imm    | imm    |    | 4.6     | 0.001   |         |          |     |
| Oxaliplatin (5 mg/ml)                                | Liquid         | 63121-00-6  | imm    | imm    | imm    |    | na      | 0.006   |         |          |     |
| Paclitaxel (Hospira) (6 mg/ml, 49.7 % (v/v) Ethanol) | Liquid         | 33069-62-4  | >240   | >240   | >240   | 5  | <0.01   | <0.01   |         |          |     |
| Phosphoric acid (50%)                                | Liquid         | 7664-38-2   | >480   | >480   | >480   | 6  | <0.05   | 0.05    |         |          |     |
| Potassium chromate (sat)                             | Liquid         | 7789-00-6   | >480   | >480   | >480   | 6  | <0.005  | 0.005   |         |          |     |
| Potassium hydroxide (40%)                            | Liquid         | 1310-58-3   | imm    | imm    | >30    | 2  | 0.7     | 0.001   |         |          |     |
| Propane -1,2,3-triol                                 | Liquid         | 56-81-5     | >240   | >480   | >480   | 6  | 0.03    | 0.01    |         |          |     |
| Sodium acetate (sat)                                 | Liquid         | 127-09-3    | imm    | >480   | >480   | 6  | <0.1    | 0.05    |         | >480     | 6   |
| Sodium chloride (9 g/l)                              | Liquid         | 7647-14-5   | >240   | >240   | >240   | 5  | <0.02   | 0.02    |         |          |     |
| Sodium hydroxide (10%)                               | Liquid         | 1310-73-2   | >240   | >480   | >480   | 6  | <0.005  | 0.005   |         |          |     |
| Sodium hydroxide (40%)                               | Liquid         | 1310-73-2   | imm    | >30    | >240   | 5  | <0.005  | 0.005   |         |          |     |
| Sodium hydroxide (50%)                               | Liquid         | 1310-73-2   | imm    | >30    | >240   | 5  | 0.85    | 0.01    |         |          |     |
| Sodium hydroxide (>95%, solid)                       | Solid          | 1310-73-2   | >480   | >480   | >480   | 6  | <0.01   | 0.01    |         |          |     |
| Sodium hypochlorite (10-15 % active chlorine)        | Liquid         | 7681-52-9   | >240   | >240   | >480   | 6  | <0.6    | 0.05    |         |          |     |
| Sodium hypochlorite (5.25-6%)                        | Liquid         | 7681-52-9   | >480   | >480   | >480   | 6  | <0.025  | 0.025   |         |          |     |
| Sulfuric acid (18%)                                  | Liquid         | 7664-93-9   | >240   | >240   | >480   | 6  | <0.05   | 0.05    |         |          |     |
| Sulfuric acid (30%)                                  | Liquid         | 7664-93-9   | >10    | >240   | >240   | 5  | <0.05   | 0.05    |         |          |     |
| Sulfuric acid (50%)                                  | Liquid         | 7664-93-9   | imm    | >30    | >60    | 3  | 38      | 0.01    |         |          |     |
| Sulfuric acid dimethyl ester                         | Liquid         | 77-78-1     | imm    | imm    | imm    |    | >160    | 0.02    |         |          |     |
| Thiotepa (10 mg/ml)                                  | Liquid         | 52-24-4     | imm    | imm    | imm    |    | na      | 0.001   |         |          |     |
| Vincristine sulfate (1 mg/ml)                        | Liquid         | 2068-78-2   | >240   | >240   | >240   | 5  | <0.001  | 0.001   |         |          |     |
| Vinorelbine (0.1 mg/ml)                              | Liquid         | 71486-22-1  | >240   | >240   | >240   | 5  | <0.0209 | 0.00209 |         |          |     |

BTAct (Actual) Breakthrough time at MDPR [mins] BT0.1 Normalized breakthrough time at 0.1 µg/cm²/min [mins] BT1.0 Normalized breakthrough time at 1.0 µg/cm²/min [mins] EN Classification according to EN 14325 SSPR Steady state permeation rate [µg/cm²/min] MDPR Minimum detectable permeation rate [µg/cm²/min] CUM480 Cumulative permeation mass after 480 mins [µg/cm²] Time150 Time to reach cumulative permeation mass of 150 µg/cm² [mins] ISO Classification according to ISO 16602 CAS Chemical abstracts service registry number min Minute > Larger than

< Smaller than   imm Immediate (< 10 min)   nm Not tested   sat Saturated solution   N/A Not Applicable   na Not  
 attained   GPR grade General purpose reagent grade   \* Based on lowest single value   8 Actual breakthrough time;  
 normalized breakthrough time is not available   DOT5 Degradation after 5 min   DOT30 Degradation after 30 min  
 DOT60 Degradation after 60 min   DOT240 Degradation after 240 min   BT1383 Normalized breakthrough time at 0.1 µg  
 /cm<sup>2</sup>/min [mins] acc. ASTM F1383

Important Note.