

## **Tyvek® IsoClean® Questions & Answers**

For quicker reference, a listing of all questions is given first, followed by questions and answers together.

1. What is Tyvek®?
2. For what class clean rooms are Tyvek® IsoClean® garments suitable?
3. How are garments processed and packaged?
4. Are sterilized Tyvek® garments available?
5. Tyvek® sometimes has an odor after gamma sterilization. Is that normal?
6. What is the shelf life of sterile garments?
7. Are Tyvek® IsoClean® garments static dissipative?
8. Can garments of Tyvek® be reused?
9. Are Tyvek® IsoClean® garments comfortable to wear?
10. Are Tyvek® IsoClean® garments offered in any other colors than traditional white?
11. Are Tyvek® IsoClean® garments water repellent?
12. At what temperatures would Tyvek® melt?
13. How can Tyvek® IsoClean® garments be disposed of?
14. Can garments made of Tyvek® be recycled?

### **1. What is Tyvek®?**

Tyvek® is a unique nonwoven material from DuPont, made entirely of flash spun continuous polyethylene fibers with no binders or fillers.

### **2. For what class clean rooms are Tyvek® IsoClean® garments suitable?**

Tyvek® IsoClean® garments are suitable for ISO Classes 5 -8 (former Federal Standard 209E classes 100 - 100,000 ) clean rooms, depending on the garment design and processing as well as the needs of specific applications. Clean processed and bound seam garments offer the highest level of contamination control and should be used in more critical applications. It is the end-user's responsibility to determine the appropriate garment for a given application.

### **3. How are garments processed and packaged?**

Tyvek® IsoClean® garments are available in:

- **Bulk (OB or OO option)**: Case quantities are packed in a cardboard case with two polyethylene liners.
- **Individually Packaged (PI option)**: Garments are individually packaged in an ISO Class 5 clean room. The case quantity is packaged in a cardboard case with two polyethylene liners.

- **Clean-processed (OC option)**: Garments are specially processed to minimize particle shedding and individually packaged in an ISO Class 4 clean room. The case quantity is packaged in a cardboard case with two polyethylene liners.
- **Sterile (OS option)**: Garments are folded for aseptic donning and individually packaged. The case quantity is packaged in a cardboard case with two polyethylene liners. Some sterile items are folded and individually packaged in an ISO Class 5 clean room (see garment data sheet). Sterility is achieved by Gamma Irradiation. Irradiation dosage is validated in accordance with ISO 11137 for a Sterility Assurance Level (SAL) of 10<sup>-6</sup>.
- **Clean-processed and Sterile (option CS)**: Garments are specially processed to minimize particle shedding, then folded for aseptic donning and individually packaged in an ISO Class 4 clean room. The case quantity is packaged in a cardboard case with two polyethylene liners. Sterility is achieved by Gamma Irradiation. Irradiation dosage is validated in accordance with ISO 11137 for a Sterility Assurance Level (SAL) of 10<sup>-6</sup>.

4. **Are sterilized Tyvek® garments available?**

A certificate of sterility is provided with each case of sterile garments. Copies of certificates of sterility are also available on the website – [Rick – need link to Sterility Certificates put here]

5. **Tyvek® sometimes has an odor after gamma sterilization. Is this normal?**

Tyvek® garments that have been sterilized using gamma irradiation will sometimes exhibit an odor, particularly when the packaging is first opened.

6. **What is the shelf life of sterile garments?**

Sterile items are generally considered to remain sterile as long as the package integrity has not been compromised (no breach of package or seals). Aging studies indicate that Tyvek® IsoClean® garments have a shelf life of at least 5 years when stored in original packaging under proper storage conditions. For Sterile Tyvek® IsoClean® production lots that do not show an expiration date on the case or bag label, the product expiration date can be calculated as 5 years from the Product Release Date on the Certificate of Sterility. DuPont suggests that non-sterile Tyvek® IsoClean® garments be used within 5 years of receipt.

Store Tyvek® IsoClean® garments in a cool, dry location. Avoid exposure to sunlight, ozone, high temperatures (>120° F) and vehicle exhaust fumes. These factors should be considered when evaluating the long term life of storage of Tyvek® and Tyvek® IsoClean® garments.

7. **Are Tyvek® IsoClean® garments static dissipative?**

The Tyvek® fabric used in Tyvek® IsoClean® garments is treated with a topical antistatic agent to help minimize nuisance static build-up and prevent garment cling. The

topical antistat is water soluble, so antistatic performance is reduced in clean processed garments.

In order for any garment ensemble to be static dissipative, it must be able to drain a charge buildup through proper grounding devices, either through workstation grounding clips or static-dissipative floors.

**8. Can garments of Tyvek® be reused?**

Tyvek® IsoClean® garments are designed for limited-use. They can be worn until damaged, altered or contaminated. These garments should not be laundered for reuse in protective apparel or clean room applications. Damaged, altered or contaminated garments should be disposed of in an appropriate manner.

**9. Are Tyvek® IsoClean® garments comfortable to wear?**

Tyvek® IsoClean® garments are lightweight and drapeable, and they allow moisture vapor to diffuse away from the worker. However, in situations where improved comfort is desired, DuPont® Suprel™ LS garments should be considered.

**10. Are Tyvek® IsoClean® garments offered in any other colors than traditional white?**

Currently DuPont offers the Tyvek® IsoClean® brand of clean room garments only in white. Tyvek® Micro-Clean® 2-1-2 is offered in blue.

**11. Are Tyvek® IsoClean® garments water repellent?**

Tyvek® IsoClean® brand garments offers limited splash protection, resists water penetration, are nonabsorbent, and have equal strength, wet or dry. Tyvek® IsoClean® garments are not recommended for protection from hazardous chemicals.

**12. At what temperatures would Tyvek® melt?**

Tyvek® fabric melts at 275°F (135°C). Tyvek® IsoClean® garments are not flame resistant or flame retardant. Garments should not be used around heat, flame, sparks, or in potentially flammable or explosive environments.

**13. How can Tyvek® IsoClean® garments be disposed of?**

Where possible recycling is preferred to disposal or incineration. The preferred method of disposal is incineration or burial in a landfill in accordance with applicable local, state, national, EC and/or federal regulations.

**14. Can garments made of Tyvek® be recycled?**

Yes, non-contaminated garments used in clean room operations can be recycled for non-hazardous applications. Contact DuPont Protective Apparel Customer Service for additional information at 1-800-931-3456.