

# Tyvek® 50 years of protection

Since its discovery back in 1955, DuPont™ Tyvek® has been used in various sectors for a wide range of purposes. The strong, flexible and adaptable synthetic material has proven to be the perfect solution for numerous tasks. Tyvek® combines the best physical properties of paper, film and fabric, to offer unique advantages for a wide variety of demanding packaging applications.

Tyvek® is made of 100% high-density polyethylene (HDPE) filaments randomly laid and bonded to form a remarkably tough substrate, perfect for all applications where strength and durability are of prime importance.

### Tyvek® for parts protection

Tyvek® is extremely flexible and protective. From it, systems can be tailor-made to optimize space in the transportation containers, which prevents damage to parts being moved during storage and transport. With no added plasticisers, which might migrate and damage the parts, Tyvek® is smooth with a low coefficient of friction, making it ergonomically efficient.

Workers can effortlessly place and pick parts without straining. The smooth and lint-free surface is agreeable to the touch and safe for parts that might be scratched or contaminated by other materials. Special styles of Tyvek® can also be used when cushioning or padding is desired, providing even greater protection for more fragile and delicate parts. Tyvek® is so lightweight and thin that it takes up very little space in the packaging containers, so more parts can fit in one container and after folding, it takes up less space for return transport, saving transport and handling costs in both directions.

Tyvek® makes it possible to store, handle and transport all kinds of sensitive parts (e.g., automotive) through the supply chain safely using returnable packaging systems. On top of this, Tyvek® provides an opportunity to make your supply chain leaner and greener.







Lightweight



Breathable



Tear resistant



Protects from dust



Water resistant



Smooth





Reusable



-80° C / +80° C -112° F / +176° F



Recyclable



# Why Tyvek

- Lightweight
- · Strong, tear- and puncture-resistant
- Breathable
- · Low linting
- Soft, smooth, silky surface
- · Can be creased, folded and stitched
- Recyclable
- · Contains no plasticisers
- Unaffected by most chemicals
- Excellent printability—barcode and variable information printable

# Tyvek® is effectively used to protect all kinds of visual and sensitive parts

### **Examples:**

- Door panels
- Arm rests
- · Glove box covers
- Belt lines
- Map pockets
- Floor consoles
- Bumpers
- Head lights
- Mirrors
- and many others

### Benefits of Tyvek® for parts protection

- Inserts made of Tyvek can be recycled after use, offering a sustainable solution that can also help to reduce the disposal costs at the end of the product life cycle.
- Provides high protection for sensitive parts, both painted and not
- Enables parts to be shipped before fully cured to save time and inventory costs with minimal risk
- Can survive a lifetime of returnable packaging
- Improves assembly and production efficiency

## **Tests by independent laboratory**

To provide information about real-life durability of Tyvek® and competitive materials, we ran comparative testing at an independent laboratory—Textilni zkusebni ustav (Textile Testing Institute in Czech Republic):

### **Tested materials:**

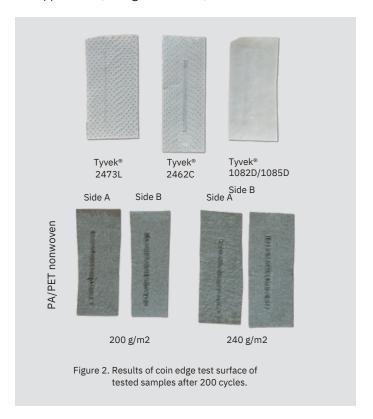
Tyvek® 2473L, 2462C and 1082D/1085D PA/PET nonwoven 200 g/m² PA/PET nonwoven 240 g/m²

# Tyvek® Tyvek® Tyvek® 2473L 2462C 1082D/1085D Side A 200 g/m2 240 g/m2 Figure 1. Results of Martindale test surface of tested samples after 500 cycles.

### **Tests performed:**

- Martindale test according to EN ISO 5470-2, MARTINDALE SDL, Type M 235 to determine abrasion resistance after 500 cycles.
- Coin edge test according to modified EN ISO 105-X12 (tested with modified head) to determine abrasion resistance by rubbing a coin edge back and forth (linear movement) after 200 cycles.

Both tests were simulating real-life challenges of such packaging configurations over time. The results showed the clear superiority of Tyvek® in terms of abrasion resistance and low-linting performance compared to other nonwovens used in this application (see figures 1 and 2).







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