



Tyvek.

DuPont™ Tyvek®

PROTECTIVE PACKAGING



NATURE INVENTED PACKAGING.
WE IMPROVED IT.

Why Tyvek®?

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 material for numerous tasks, be it wrapping houses as a protective barrier, serving as nearly indestructible mailing envelopes or protecting people from chemical risks.

Discovered by lucky chance when a DuPont researcher saw polyethylene coming out of a pipe in an experiment lab, this spunbonded olefin nonwoven fabric has since then provided the solution for many specific needs and is continually being used in new ways.

Strong and highly tear-resistant, it prevents water from getting in but is breathable and allows moisture to escape; it reflects UV rays and heat, is extremely lightweight and easy to drape, fold and use for printing purposes. These and other qualities have made Tyvek® especially popular in the construction, packaging, automotive, printing, medical and other sectors.

Tyvek® is easy to convert, it can be cut, glued, sewn, die-cut and stitched.

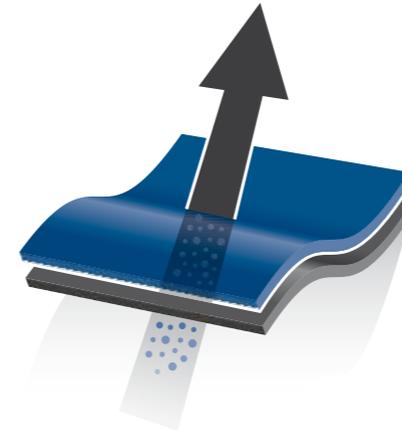


VERSATILE AND USEFUL IN MANY AREAS

A unique set of properties, offering a balance of physical characteristics that combine the best properties of paper, film and fabric make DuPont™ Tyvek® so popular and versatile.

It is made of spunbonded olefin, formed from very fine 0.5-10 µm fibers. (By comparison, a human hair is about 75 µm in cross section.) These non-directional fibers (plexifilaments) are first spun and then bonded by heat and pressure, without binders.

Among its most appreciated characteristics are that it is breathable, water-resistant, strong, recyclable and lightweight. It can save physical strain, space and costs and provides excellent protection for a wide range of goods.

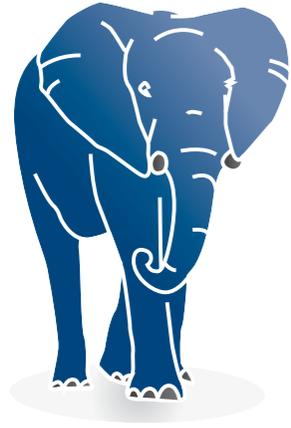


BREATHABLE

One of the great advantages of DuPont™ Tyvek® is that it is breathable, which makes it the perfect solution for so many different needs. For example, it is ideal in production when filling bags with very fine powders (such as pigments) or other bags for the food, pharmaceutical or chemical industries. Because Tyvek® is porous, air being naturally pushed out when the bag is being filled can escape through the fibers, allowing bags to be filled faster without bursting.

Breathability also helps extend the shelf life of fresh produce, protects goods from rot and mildew, allows precious works of art to be protected without fear of moisture damage and helps to keep vehicles free from rust.





VERY RESISTANT

To paraphrase the words of a famous boxer, *Tyvek® looks like a butterfly but stings like a bee.* The combination of its physical properties makes it a unique product. Strong and tear-resistant, Tyvek® stands up to tough applications. World famous strongman Georges Christen, a man whose show routinely includes deftly ripping thick phone books in half, was no match against an envelope made of DuPont™ Tyvek® he could not tear.

This extremely strong substrate is stable and retains its properties in a wide temperature range from -70 to +85 degrees Celsius. It is also resistant against water, heat, sunlight, chemicals, solvents, environmental pollutants and a host of other factors that commonly damage goods. These all add up to a product that offers ultimate protection in varying production, weather, transport and storage conditions.

Because even very thin styles of Tyvek® offer this strength, Tyvek® takes up far less space than other materials used for the same purposes. This saves storage and transport space, which in turn saves considerable money.

Tyvek® can also reduce the number of layers you need to design an industrial bag and thereby reduce the final weight of the bag, without diminishing its strength.



WATER-RESISTANT

While it allows moisture to escape, DuPont™ Tyvek® is water-resistant and keeps water *out*. Think of it as the very best, most efficient raincoat that a car, RV or motorcycle could have. It really repels the water and keeps things dry, protecting everything from box of produce sitting outside waiting for cargo pickup to a big RV parked at a campsite.

The unique nonwoven structure of Tyvek® protects against inclement weather and environmental conditions, making it ideal to use as a protective cover. Tyvek® is also perfect for applications that might require padding.

The physical properties of Tyvek® are simply not affected by water; it is equally strong wet or dry under ordinary conditions and in ambient temperature.

The water resistance of Tyvek® makes it the perfect substrate for the desiccant application to ensure captured moisture stays in the bag.



RECYCLABLE

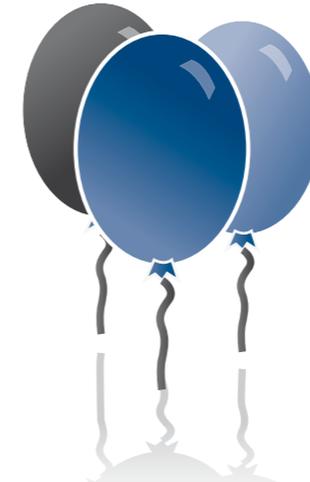
DuPont™ Tyvek® is 100% recyclable and can be used again in a wide range of products. DuPont is committed to the efficient and safe handling of plastics waste and advocates a waste management system that includes reuse and energy recovery.

Being 100% HDPE (High-density polyethylene), products made from Tyvek® can be mechanically recycled into products such as underground cable protection piping, automotive parts, blown film, packaging cores and flowerpots. It is a high quality, valuable commodity for which recycling firms are willing to pay top price.

Products made from Tyvek® which are printed, glued, welded or sewn can also be recycled the same way as Tyvek® which has been extrusion coated or laminated with a polymer of the same family. Polyethylene can normally be recycled 4 to 5 times before physical properties are substantially affected.

Tyvek® can be chemically recycled with other polymers. In this process the original material is separated into its chemical components, which are then recovered for reuse.

When incinerated in excess oxygen, Tyvek® yields only water and CO₂. It is excellent in fuel yielding: two or more times the energy of coal and is equal to oil in generating heat.



LIGHT



DuPont™ Tyvek® weighs significantly less than other materials of similar strength. Because it is strong and lightweight, less material is needed to perform many functions. A product made from Tyvek® can weigh far less than products made from other materials, while offering equivalent or superior performance.

Tyvek® lightens the workload. A typical vehicle cover, for example, is very easy to put on and to remove and takes up very little space when folded up and stored. Wrapping produce, art canvases and any other item is easy for employees to do, without undue strain or loss of time and energy. Packaging for parts can be easily maneuvered and stored as well.

The lightness of Tyvek® also makes it extremely cost-efficient to transport. It adds no weight to cargo flights, road or rail transport, which represents a significant savings.

APPLICATIONS

Versatile DuPont™ Tyvek® has been used for everything from protective clothing for industrial workers to wrapping houses as added insulation to protect them from moisture and water damage. It is a popular choice for medical and industrial packaging and is often seen in graphics, as maps, plant tags, envelopes and mailing packages.

Please also consult our fact sheets highlighting a few of the applications of Tyvek®. These touch briefly upon the areas of parts protection, art packaging, protective covers, food and active bags. For more detailed information, please see our website at www.packaging.tyvek.com or see contact details for a DuPont representative on the backside of this brochure.

Properties of DuPont™ Tyvek®



Breathable



Very resistant



Light



Water resistant



Reusable



Smooth



Recyclable



Protects from dust



Helps protect perishables



-70°C / +85°C



Easy installation



UV-resistant

For further information, technical assistance or samples,
please contact your local distributor or DuPont.

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