

Tyvek® - Advancing Sustainability in Consumer & Industrial

Tyvek[®] for Consumer & Industrial

Tyvek[®], a unique nonwoven material by DuPont,

breathable, tear-resistant & reusable, recyclable*.

*Tyvek[®] is made of HDPE and products made of 100% Tyvek[®] material can be recycled at facilities that recycle flexible HDPE materials. Recycling facilities for Tyvek[®] may not exist in your area.

Together with its other attributes, DuPont[™] Tyvek[®] has become



A trendy material that inspires lifestyle product designs.



A high-performance material for demanding packaging needs.

In C&I, our sustainability efforts focus on



is made of high-density polyethylene, is lightweight & durable, water-resistant &



A robust material that creates enduring impressions with its unique graphics capabilities.



An ideal choice for anti-dust mite bedding.

Committed to sustainability and working towards UN SDGs

In line with the UN Sustainable Development Goals and DuPont's 2030 Sustainability **Goals**, we are committed to delivering trusted product and program solutions for our customers and value chain. Our commitment is focused on addressing climate change, advancing a circular economy, and fostering communities.





At DuPont, science and engineering are the foundation of our company, and innovation is how we create long-term value for our multiple stakeholders. Grounded in our purpose to empower the world with the essential innovations to thrive - our sustainability strategy is built on the three pillars: Innovate, Protect and Empower.



Innovate for good

Sustainable attributes of DuPont[™] Tyvek[®]



ISO 14001 certified

All Tyvek® manufacturing sites are ISO 14001 certified, and sustainability goals for water and energy consumption processes exceed the necessary certification



Lightweight

Lighter than paper, better than paper. It is water-resistant, breathable, and incredibly tough. Its excellent strength -to-weight ratio reduces energy consumption during transportation compared to similar products.



Low additives

Tyvek[®] is made without plasticizers or restricted chemicals above the limits listed in European Directives, such as RoHS (Directive 2015/863/EU) or **REACH Substances of Very High** Concern (SVHC).



Recyclable*

At the end of its life, Tyvek® is 100% recyclable for new applications.

100% Tyvek® material can be recycled at facilities that recycle flexible HDPE materials. Recycling



Less waste

Its lightweight nature, combined with high durability and functional performance, leads to reduced energy and resource use and minimized material waste at the end of the product life.





Protect people and the planet

Empower people to thrive



Reusable

The fibers of Tyvek[®] are randomly laid and compressed to provide superior tear resistance for long-lasting product

Designing for recyclability

Recyclability requires not only the compositional quality of materials to enable recycling but also an infrastructure for collecting and sorting materials into existing waste streams and then converting them into new products.

Tyvek[®] is made of HDPE and products made of 100% Tyvek[®] material can be recycled at facilities that recycle flexible HDPE materials. Recycling facilities for Tyvek[®] may not exist in your area.



Tyvek[®] is certified 100% recyclable

An independent analysis and assessment of the recyclability of Tyvek® styles for Consumer & Industrial applications was conducted by Institute cyclos-HTP.

As a result, DuPont[™] Tyvek[®] 1025B, 1025D, 1056D, 1056DR, 1057D, 1058D, 1070D, 1073D, 8740D, 8740DL, 1082D, 1442R, 1443RG, 1460R, 1473R, 4060B, 4158D, 4173D, have been certified as 100% recyclable.

This means that after their initial use, Tyvek[®] products that are not exposed to chemical or biological hazards and meet the material and physical prerequisites to be recycled to become a secondary product of similar material.



Tyvek[®] is **OEKO-TEX®** Standard 100 **Class II certified** for selected products

OEKO

TEX[®]

A copy of this certificate can be downloaded at Tyvek[®] Sustainability Report | DuPont[™] Tyvek[®] for Design



Recyclability of Packaging Material Group

DuPont de Nemours (Luxembo on, Contern 2984 Luxembourg | Luxembourg

urg) s.à r.l. DuPont Specialty Products USA. LLC Richmond, VA 23234, U.S.A.

eceives the certification of recyclability for the following packaging material group

Tyvek[®] materials for Consumer & Industrial applications DuPont[™] Tyvek[®] 1025B, 1025D, 1025DG, 1056D, 1056DR, 1056DG, 1057D, 1058B, 1070D, 1073D 8740D, 8740DL, 1082D, 1085D, 1442R, 1443RG, 1460R, 1473R, 4060B, 4158D, 4173D, mainly made of high-density hoyethytiene which are inherent white without any dye pigments. (Unprinted; additional printing inks or labels can affect the recyclability of these packaging i

Test result

standard amounts to 100 %

| | | |
|----------|-----------|------|
| | · · · · · | |
| 6 | | |

| Path | | | | Scope | | Recyclate |
|---|---------------|--|---------------------------|------------|-------------------------------------|-----------|
| | Recyclability | > DIN A4 | > DIN A5 and ≤ DIN A4 | ≤ DIN A5 | (final product) | |
| Path 1: Plastic films / LDPE | 100 % | AT, BE, DE, DK, ES, FI, FR, IE, IT, LU, NL, NO, PL, PT, SE, SI | BE, DE, ES, FR, IT, NL | BE, DE, IT | LDPE regranulate Yield: 100 % | |
| Path 7: Mixed Polyolefins / Mixed Plastics (flexible) | 100 % | - | AT | AT, DE | PO regranulate Yield: 100 % | |

Test standard: B Requirements and assessment catalogue of the cyclos-HTP Institute for EU-wide certification Within the cartification process, conformity with the following standards was also checked: B Minimum standard for measuring the recycling capacity of the 25% (state 3108/2023); also integrated D IN EN 13430 with regard to material recyclability in the post-use phase; also integrated

This certificate (No. 2445-2021-002640-W2) is valid until 30/11/2024 (1 year upon issue) for the countries listed above; for the countries shown in *italics*, the existence of a recycling infrastructure cannot be assumed as predominant or the determined value of recyclability is below 50 %. This certificate will lose validity in case of qualitative or quantitative changes of packaging c

CHI | cyclos-HTP Institute





Improving our operational footprint Spruance & Luxembourg site

Progress towards continuously improving our operational footprint



Energy and emissions

The Spruance site in Richmond, VA, USA, which manufactures Tyvek[®] fabric, Nomex[®] fibers, & Kevlar[®] fibers, completed a conversion from coal to natural gas in 2019 to produce steam & electricity more efficiently with fewer greenhouse gas (GHG) emissions. This has reduced annual GHG emissions by more than 100,000 metric tons of CO2e (MTCO2e), equivalent to removing 22,000 cars from the road.

The Tyvek[®] Spruance site works with a converter to reprocess post-industrial waste into HDPE granulates for reuse, as part of our ongoing commitment to 4R.



We are now part of RE100, an international eco-initiative spearheaded by the Climate Group alongside CDP. This initiative unites organizations dedicated to transitioning their global operational electricity use to 100% renewable energy. As part of this initiative, DuPont aims to source at least 60% of its electricity from renewable energy by 2030 and achieve carbon neutrality by 2050.

Tyvek[®] is produced using renewable electricity in our operations. DuPont achieved this milestone by purchasing renewable energy credits (RECs) and guarantees of origin (GOs) to match the energy consumed in its 2022 operations and is committed to additional purchases annually.







Waste

As part of our ongoing commitment to achieving zero waste and implementing a 4R (Reduce, Reuse, Repurpose, Recycle) waste reduction program at our manufacturing sites, we established an onsite recycling facility alongside our Tyvek® manufacturing lines in Luxembourg. The facility uses a sophisticated shredder-feeder-extruder combination system that processes all types of Tyvek® production waste and pelletizes it for reuse.

This system makes it easy and efficient to reprocess post-industrial waste into HDPE granulates for reuse. For instance, these recycled HDPE granules manufacture plastic cores, which are used to roll Tyvek[®] for storage and distribution.





Enabling a circular economy,

Tyvek[®] delivers on circular economy commitments through a global network of recyclers.



Tyvek[®] has developed a worldwide network of recyclers in the US, Germany, China and Turkey. We are further exploring new recyclers in other countries.

Tyvek[®] recycling value chain

Products made of 100% Tyvek[®] material can be recycled at facilities that recycle flexible HDPE materials. Please check recycling facilities in your area to ensure they can recycle Tyvek[®].







design

Allsop Home & Garden Solar Lamp

Allsop Home & Garden is a brand known for its lighting and garden tools. Their products are designed with creative and unique materials with an emphasis on sustainability.

Tyvek[®].



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It's durable, lightweight, weatherproof, and can even have a metallic finish when laminated. It is impressive, especially since we've paired it with solar technology for sustainability. It's cordless, designed for year-round outdoor use, and people have loved the product from the start—and they still do.

Jamey Allsop Founder of Allsop Home & Garden brand

Tyvek[®] enables sustainable

In their search for a new-age version of the already-developed solar-powered lantern, they discovered an ideal solution with





Supporting our local community

From Waste to Treasure in China's Zero Waste Project: Enabling Tyvek[®] Upcycling and Innovative Design Explorations

In early 2022, the Tyvek[®] China business team initiated the Tyvek[®] Zero Waste program to repurpose waste from Tyvek[®] slitting operations, cutting down on both labor and the resources needed for waste management. Working with a local company, the Tyvek[®] team in China has been repurposing waste from industrial applications into material samples for industrial designers to use in consumer product designs.

Our domestic partner 材料馆®(A company from China) showcases a range of Tyvek[®] industrial waste materials in their physical display space. Designers can get a hands-on feel for Tyvek®'s unique properties and request samples for their design projects. Up to now, more than 50 designers had participated in the Tyvek[®] Zero Waste initiative. In addition, DuPont has been running a mix of online and in-person design workshops enabling hundreds of designers to discover uses for these excess materials. Below is a showcased design from this initiative. We welcome any ideas to explore the Zero Waste project with us.







sustainability.tyvek.com

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