



Look around!
SPUNBOND is in every step!

Our product is made for everyone...

«...The nonwovens industry has responded to the pandemic and will continue to provide materials that keep the surfaces we touch clean, protect the air we breathe, and provide a barrier to keep our bodies safe...» - Brad Kalil, director of market intelligence and economic insights, INDA.



SPUNBOND (description)

Here you will find information about what spunbond is and its role in the international market.



IN EVERY STEP

Detailed information about general application, benefits in use.



WHO WE ARE

Company introduction and our contact information.

MODERN TECHNOLOGIES FOR THE FUTURE OF OUR PLANET

The use of the latest methods of processing minerals TODAY allows us to make a worthy contribution to the well-being and sustainable development of the world community in the
FUTURE

SPUNBOND –

- **WHAT IS IT?**
- **WHAT IT IS NECESSARY FOR?**
- **HOW IT APPEARED?**

SPUNBOND (description)

“Spunbond” – general name of the technology for the production of nonwoven material from polymer melt by a filter method. But in professional environment, this term also refers to the material itself, which is produced in this way.

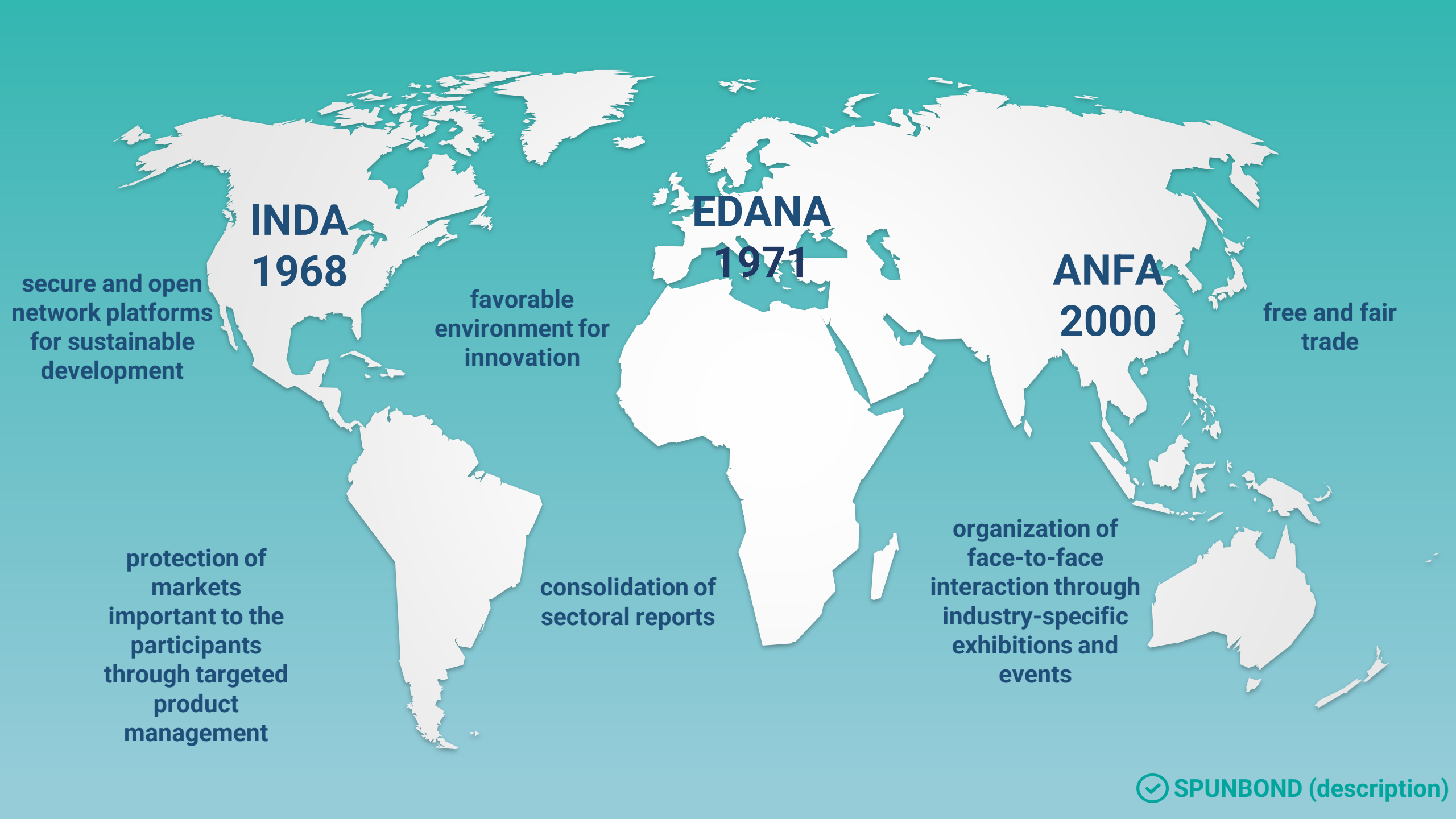
The first technologies for the production of nonwoven materials were developed and applied in Europe in the 1960s of the last century.

Spunbond technology has gained great popularity and interest in the possibilities of its use has increased exponentially.

It is noteworthy that this was the beginning of the process of technical improvement and transformation of nonwovens.



Late 1960s and the beginning of the 1970s of the last century fell on the period of the formation of the regulatory framework for the production and use of nonwovens. At that period national and international associations has also emerged to represent the entire nonwovens value chain, from raw materials to finished products and everything in between, including equipment, components, and development and testing tools.



**INDA
1968**

secure and open
network platforms
for sustainable
development

**EDANA
1971**

favorable
environment for
innovation

**ANFA
2000**

free and fair
trade

protection of
markets
important to the
participants
through targeted
product
management

consolidation of
sectoral reports

organization of
face-to-face
interaction through
industry-specific
exhibitions and
events

**Regulations and
technology for the
production of spunbond
are FIXED by international
ASSOCIATIONS**



**It is the generally recognized
standards that have led to an
accurate technical description of the
full production cycle, following which
is mandatory for every enterprise.**



The technology for the production of nonwoven material by a spunbond method involves several STAGES:

01

Preparation and supply of polymeric raw materials to the melting unit

02

Polymer melting and melt filtration

03

The formation of a entire canvas

04

Canvas formation

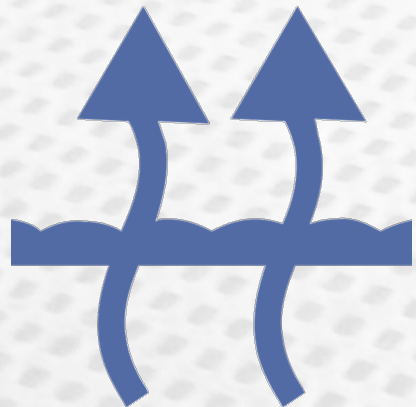
For the production of nonwoven materials using spunbond technology, various types of fiber-forming polymers with a wide range of molecular weight distribution:

- polypropylene (PP),
- polyamide (PA),
- polyester,
- polyethylene terephthalate (PET),
- polyethylene and their various combinations.

The popularity of POLYPROPYLENE for the production of spunbond is due to the fact that it results in a denser distribution of fibers in the web.

THE MAIN CHARACTERISTICS OF SPUNBOND

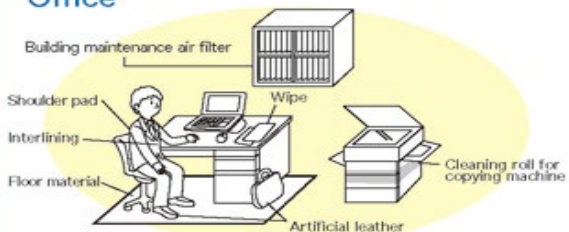
- homogeneity of the structure;
- **lightness (even the densest species have negligible weight);**
- resistance to acids and alkalis;
- **inertness with respect to chemicals (does not react with them);**
- low degree of combustibility and flammability;
- **strength and durability (it is not susceptible to corrosion, rotting, mold);**
- resistant to abrasion and a wrinkle-resistant;
- **has high tensile load (in dry and wet condition);**



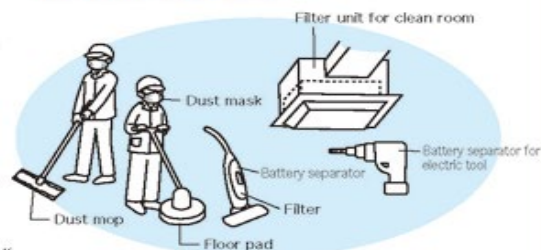
- **low electrical conductivity (the material does not conduct electricity, does not accumulate static electricity);**
- permeability (passes air and steam, does not create a greenhouse effect);
- **resistance to temperature differences;**
- high ability to retain heat (as thermal insulation);
- **environmental friendliness and non-toxicity ;**
- convenient to use (easy to cut and process, the edge does not crumble).

Nonwovens applications for various fields

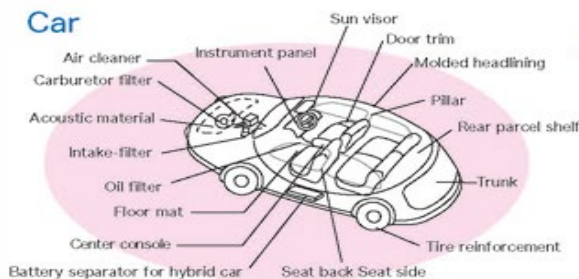
Office



Institutional use



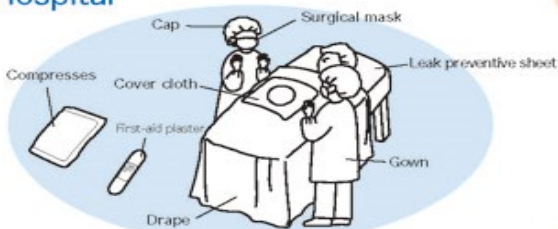
Car



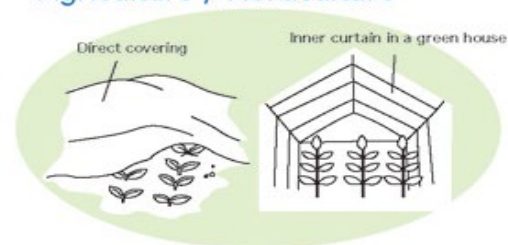
Household



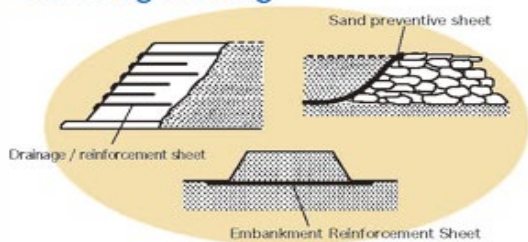
Hospital



Agriculture / Horticulture



Civil engineering



All the unique properties of SPUNBOND allow it to be used in many areas – FROM CONSTRUCTION TO MEDICINE

The Asian Association of Nonwoven Fabrics Manufacturers (ANFA) has consolidated information on the use of nonwoven material in modern society and depicted everything in just one figure, which shows all spheres of human life:

- household,
- office;
- car,
- hospital,
- Institutional use,
- agriculture, horticulture,
- civil engineering.



Widespread use

Benefits to use

Types of application

IN EVERY STEP

Thermally bonded non-woven fabric has the widest application. Spunbond with a density of up to 150 grams per square meter has found its wide use.

- Agriculture
- Construction
- The medicine
- Manufacture of overalls
- Manufacture of hygiene products
- Furniture manufacturing
- Printing, promotional products
- Filter production
- Means of packaging and storage systems



in **AGRICULTURE** most often used

☐ a covering material for greenhouses (spread directly on plants)

☐ mulch (cover the ground)

cloth density 14-60 g/m²

Spunbond provides **high and early yields** due to its characteristics such as

- high transfer performance of natural daylight, air;
- permeability (passes air and steam, does not create a greenhouse effect);
- resistance to temperature differences;
- high ability to retain heat (as thermal insulation).

Spunbond protects grown plants from pests, increases yield by 30-40%, accelerates the ripening period by 3-4 weeks. As the material is strength and durability it is possible to use it about 3-4 seasons.

Notably: Spunbond using in agriculture reduces the need to use pesticides.





According to the density of non-woven materials, they differ in the following way:

- 1) **light** (14-17 g/m²), which are available only in white: they will protect your plants from spring frosts, burning sun, insects and birds;
- 2) **medium** (28-42 g / m²), also exclusively white. Such materials are intended for the construction of greenhouses, hotbeds and protection of shrubs and crops from winter frosts;
- 3) **dense** (60 g/m²), which can be either white or black and are used for the same purposes as medium-density materials.

Black spunbond is designed for **mulching** beds and weed control: without receiving light, weeds cannot develop and die, and the crop protected by agrofibre is planted in its slots.

Mulching is a surface covering of the soil with mulch to protect it and improve its properties. Mulch is a layer of material applied to the soil surface. Reasons for using mulch include retaining moisture in the soil, improving soil fertility and health, reducing weed growth, and increasing the visual appeal of the site.

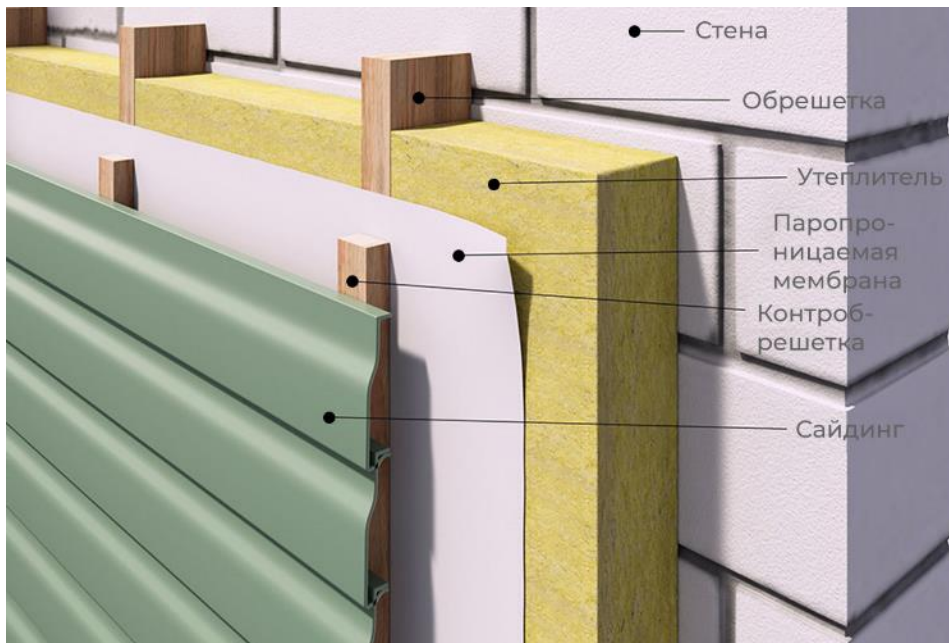


Spunbond in **CONSTRUCTION** is particularly used in:

- ❑ wind insulation of facade and roof systems;
- ❑ vapor barrier in roofing and wall structures;
- ❑ waterproofing membranes for building structures and elements;
- ❑ in landscape design - a cushioning layer for drainage

cloth density 15-150 g/m²

Spunbond is used as an under-roofing wind-moisture protective membrane in insulated with various coatings: metal tiles, natural tiles, soft bituminous tiles, profiled sheets, etc.



Spunbond is used to protect the outer walls of low-rise buildings made of timber, panel, frame or combined structures from moisture and wind in all cases of using external cladding (lining, siding) with external wall insulation.

Spunbond is often used in landscape design surrounded by private houses. It can be used as a cushioning layer for drainage. By laying this material, surfaces are leveled for the construction of decorative embankments.





Spunbond is used in the production of disposable products in the **MEDICINE** :

- gowns,
- shoe covers,
- hats,
- masks,
- sets for surgical operating rooms,
- and etc

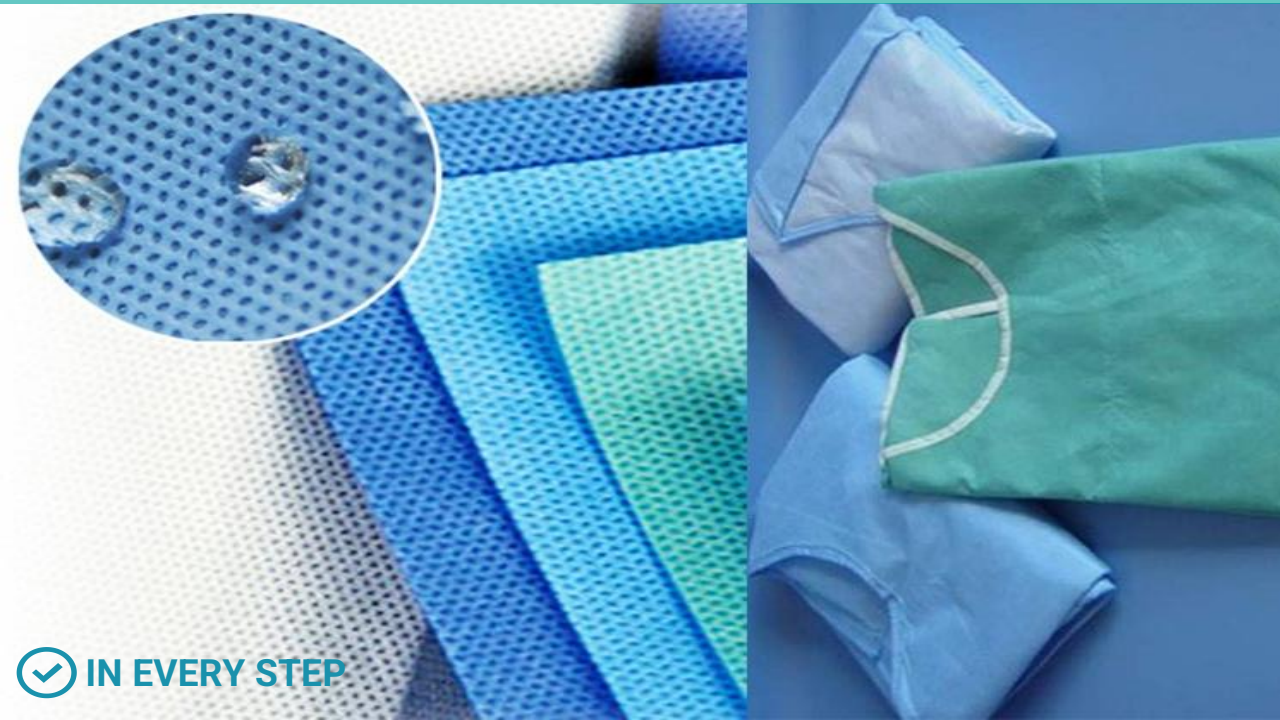
cloth density 8 - 74 g/m²



 IN EVERY STEP

Spunbond has **operational and economic advantages:**

- high wear resistance (five times higher than woven materials),
- cost-effectiveness, the ability to form fabrics with desired properties,
- the advantages of a combination of "strength-mass" (in comparison with woven or knitted materials of the same mass).



Modern technologies allow the production of spunbond with a **fiber thickness of up to 1.1 den, which is almost 50 times thinner than a human hair**, and excellent uniformity across the entire width of the web, these characteristics have a positive effect on tactile sensations when in contact with products made using this material.

Spunbond has water-repellent properties, is easy to cut, unpretentious in storage. However, due to significant drawbacks (high coefficient of bacterial breakthrough), it is **mainly used for the manufacture of non-sterile products.**



SPUNBOND in MANUFACTURE OF OVERALLS and in LIGHT INDUSTRY

- ❑ Overalls for public catering organizations and beauty salons
cloth density 25 - 60 g/m²
- ❑ Household textile industry: when sewing casual clothes, it is used as a cushioning material
cloth density 25 - 60 g/m²
- ❑ In the manufacture of leather bags, wallets, purses and sports bags serves as a lining material
cloth density 15 - 150 g/m²
- ❑ At production of covers for cars, furniture serves as a lining material
cloth density 20 - 150 g/m²

❑ Overalls for public catering organizations and beauty salons

cloth density 25 - 60 g/m²



- In the technical industries, construction, food industry, the use of disposable overalls, aprons, sleeves, caps protects the worker and his clothes from general industrial pollution, protects the manufactured products from contact with the worker.
- The use of disposable overalls is also in the oil industry, when carrying out paintwork and other areas with a high level of pollution (expert laboratories, when carrying out cleaning, construction, repair and agricultural work, also workwear is used by designers , graphic designers).
- In the beauty industry, disposable consumables are intended for personal hygiene and protection against fungi, bacteria, viruses and infections.

❑ Household textile industry

cloth density 25 - 60 g/m²

Making clothes:

- production of substrates
- strengthening of seams
- reinforcement of corsages
- NON-adhesive interlining (for collars, cuffs, pocket flaps)

Making curtains:

- production of a rigid basis for direct lambrequins
- production of a curtain tape (corsage)

Production of bed linen, bedspreads, mattresses, pillows:

- for the formation of substrates and interlinings in fillers
- formation of the outer frame of mattresses and bedspreads
- tailoring of bedticks



❑ In the manufacture of leather bags, wallets, purses and sports bags serves as a lining material

cloth density 15 - 150 g/m²



Spunbond, due to its wear resistance, ease of cutting and low cost, has found application in the leather goods industry. Here spunbond can perform various functions, which include:

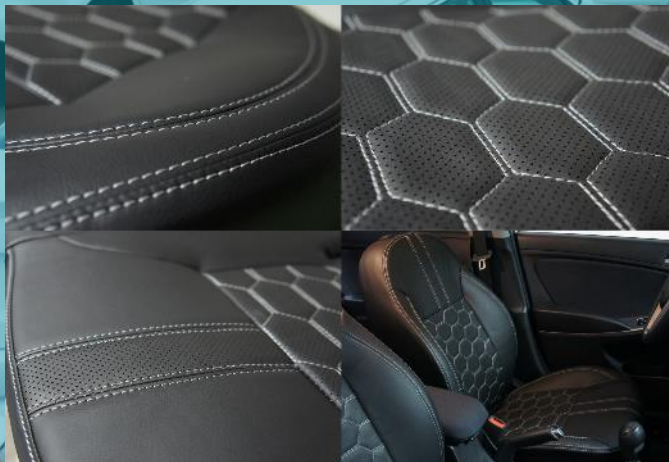
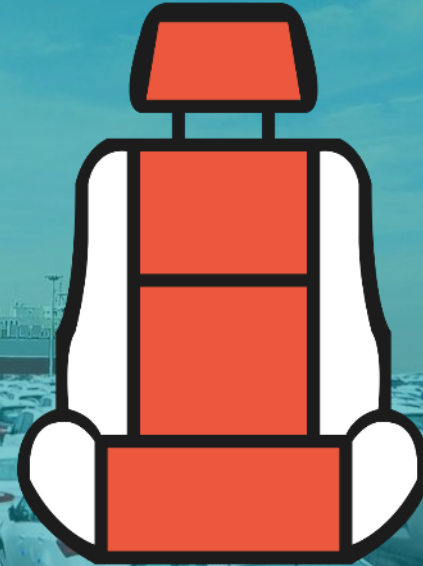
- The main lining of leather goods;
- Interlining / duplication of the main material of the top;
- Rigidity of internal inserts (partitions);
- Close-fitting bottom;
- Strengthening of seams, durability of a line;
- Corsage basis of belts.

□ At production of covers for cars, furniture serves as a lining material

cloth density 20 - 150 g/m²

Today, more than 40 automotive parts are made from nonwovens, from trunk linings and carpets to air and fuel filters.

With the essential properties needed for good performance and safety, nonwovens help **reduce vehicle weight, enhance comfort and aesthetics, and provide improved insulation, fire resistance, and resistance to water, fuel, extreme temperatures, and abrasion.**



When tailoring car covers and upholstery of seats, spunbond is used to reinforce eco-leather on microfiber, rolled foam rubber and foam rubber in sheets. Eco-leather on microfiber must be reinforced with spunbond with a density of at least 60g/m² to prevent cracking of the front layer when the microfiber itself is strongly stretched.

SPUNBOND in MANUFACTURE OF HYGIENE PRODUCTS

In the production of feminine and children's hygiene items (pads and diapers) it is used as **the top layer**.

cloth density 17 - 20 g/m²

According to the practice of manufacturers, feminine hygiene products consist of **three layers**:

1. The top layer or, in other words, the outer cover layer. The following materials can be used as the cover layer:

- Non-woven material based on staple polyester/polypropylene fiber, as well as a mixture of different fibers (thermobond);
- Non-woven polypropylene material of **the "spunbond" type (single-layer "S" or two-layer "SS")**;
- Perforated polymer (PE) top-dry film.

2. The inner layer is absorbent. The absorbent layer may include the following materials:

- Fluff pulp;
- Airlaid non-woven fabric (the fabric is formed from staple fibers by air jets (most often from cellulose));
- Fluff pulp + airlaid fabric;
- Meltblown non-woven material.



3. Bottom layer. Polyethylene film is usually used as the bottom layer. However, a spunbond nonwoven fabric laminated with a film or a spunbond-meltblown-spunbond composite material laminated with a film can also be used.



SPUNBOND in FURNITURE MANUFACTURING

Used as

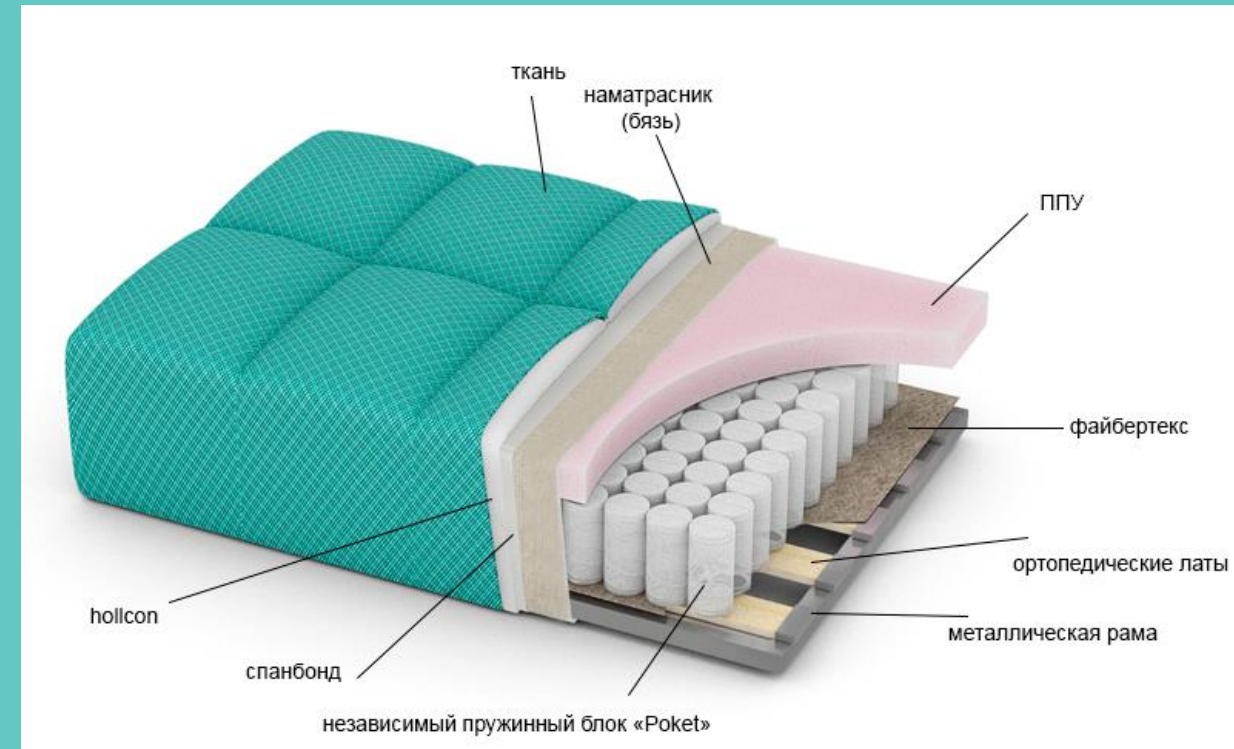
- ❑ separator between upholstery and filler,
- ❑ as a cushioning material over the spring block,
- ❑ they also cover the back walls and the bottom of the furniture.

cloth density 60 - 150 g/m²

A study of the upholstered furniture market showed that by now almost all **manufacturers** (up to **96%** of the total number) **use spunbond** in their production for various purposes.

The main applications of spunbond in the upholstered furniture market include:

- sheathing of the rear, lower and internal (invisible) surfaces of products,
- inner covers of pillows and soft elements, a sliding layer,
- in mattresses as a technical fabric to protect the filler from the spring block.



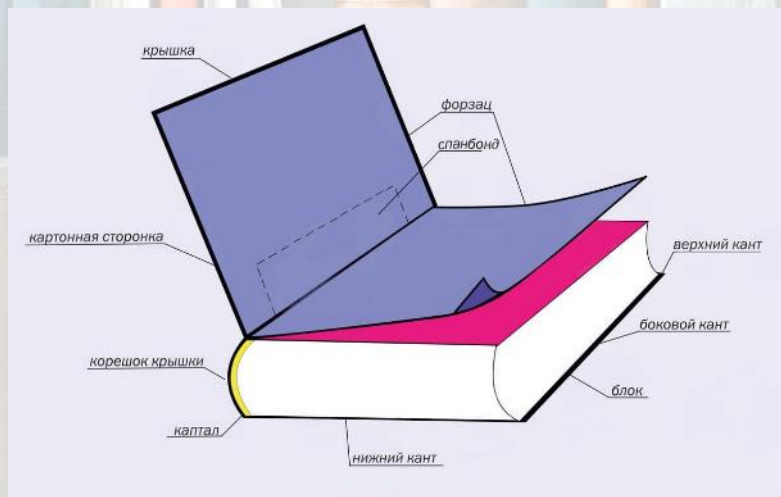
SPUNBOND in PRINTING

and as

PROMOTIONAL PRODUCTS MEANS OF PACKAGING AND STORAGE SYSTEMS

Cloth density 30 - 150 g/m²





In printing, spunbond is **significantly stronger and lighter** than printing gauze and has been increasingly used over time to secure pages in hardcover books. Spunbond can be found on the spines of books - **stickers are made from it.** In addition, it is needed for fixing or flashing blocks of material.



Spunbond is ideal for a wide variety of packaging and storage applications as its **light weight, energy efficient manufacturing,** transport and storage, and long life and strength provide two important features: **volume reduction and reusability.**



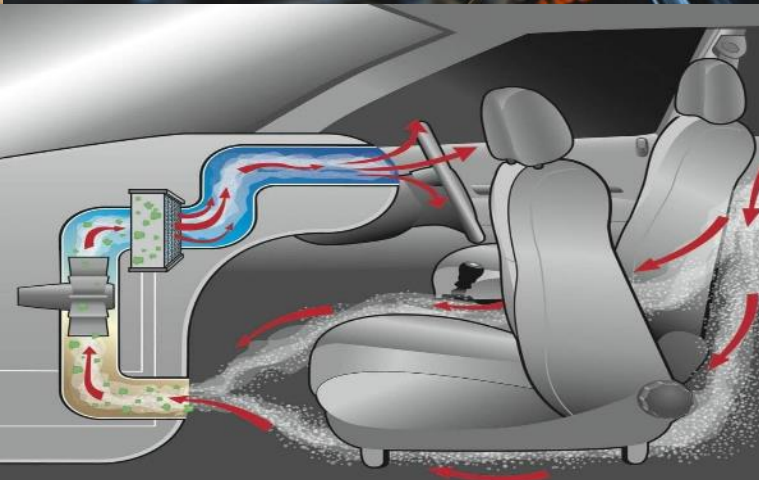
Transferring an image (company/brand logo) to spunbond products most often It is produced by printing methods such as **silk screen printing and screen printing**, that is, by forcing ink through a stencil.



SPUNPOND in FILTER PRODUCTION

Cloth density 15 - 40 g/m²

- ❑ filters for liquids;
- ❑ catching dust (filters for vacuum cleaners);
- ❑ respiratory protection (disposable respirators, pleated masks and rubber half masks);
- ❑ capture of smells (filters for kitchen extracts);
- ❑ air conditioning and ventilation (bag and cassette filters, filter canvas, combined filter materials).



Spunbond can be applied in the following types of filtrations:

- HVAC (heating, ventilation, & air conditioning) – industrial heating, ventilation and air conditioning;
- Industrial and consumer products (vacuum cleaners, kitchen hoods, PCs, etc.);
- «Clean rooms»;
- Food and drinks;
- Automotive filtration (air in the engine, in the cabin (cabin), engine oil, fuel);
- Special filtration (dust, aromas, etc.).

Все уникальные свойства СПАНБОНДА позволяют использовать его во многих сферах — ОТ СТРОИТЕЛЬСТВА ДО МЕДИЦИНЫ

Field of application	Types	Cloth density, g/m ²								
		12	25	30	40	60	80	100	130	150
Agriculture	covering material	△	△	△	△					
	mulch					△				
Construction	wind insulation of facade and roof systems					△	△	△	△	△
	vapor barrier in roofing and wall structures					△	△	△	△	△
	waterproofing membranes for building structures and elements					△	△	△	△	△
	in landscape design - a cushioning layer for drainage					△	△	△	△	△

Field of application	Types	Cloth density, g/m ²								
		12	25	30	40	60	80	100	130	150
The medicine	disposable headwear (8-15 g/m ²)	△								
	shoe covers (15-60 g/m ²)	△	△	△	△	△				
	masks (single layered, NOT medical) (15-60 g/m ²)	△	△	△	△	△				
	surgical gowns (25-74 g/m ²)		△	△	△	△	△			
	surgical absorbent and wiping materials (17-30 g/m ²)	△	△	△						



Field of application	Types	Cloth density, g/m ²								
		12	25	30	40	60	80	100	130	150
Manufacture of overalls and light industry	overalls for public catering organizations and beauty salons (disposable aprons, dressing gowns, trousers, etc.) (25-60 g/m ²)		△	△	△	△				
	household textile industry: when sewing casual clothes, it is used as a cushioning material (25-60 g/m ²)		△	△	△	△				
	<i>in the manufacture of leather bags, wallets, purses and sports bags serves as a lining material</i> (15-150 g/m ²)	△	△	△	△	△	△	△	△	△
	<i>at production of covers for cars, furniture serves as a lining material</i> (20-150 g/m ²)		△	△	△	△	△	△	△	△

Field of application	Types	Cloth density, g/m ²								
		12	25	30	40	60	80	100	130	150
Manufacture of hygiene products	feminine and children's hygiene items (pads and diapers) (17-20 g/m ²)	△	△							
Furniture manufacturing	separator between upholstery and filler					△	△	△	△	△
	as a cushioning material over the spring block			△		△	△	△	△	△
	cover of the back walls and the bottom of the furniture					△	△	△	△	△
	manufacture of mattresses					△	△	△	△	



Field of application	Types	Cloth density, g/m ²								
		12	25	30	40	60	80	100	130	150
Printing, promotional products, means of packaging and storage systems	polygraphy	△	△							
	bags, cases, spunbond cases					△	△	△	△	△
	variety of packaging and storage applications			△	△	△	△	△	△	△
Filter production (15-40 g/m ²)	HVAC – industrial heating, ventilation and air conditioning	△	△	△	△					
	industrial and consumer products	△	△	△	△					
	«clean rooms»	△	△	△	△					
	automotive filtration	△	△	△	△					
	special filtration (dust, aromas, etc.)	△	△	△	△					



WHO WE ARE

WE ARE BASH PLASTIK!

We work for your every comfortable movement

The whole world is like one big living organism, each and everything takes its position, performing a certain function.

Our mission is to be part of the mechanism to save the future for the next generation.

As a manufacturer of nonwoven fabric, we strive to make the most of it and allow others to use it everywhere.

 КТО МЫ



Economic society “Bash Plastic” was established on the basis of the group of companies of the individual enterprise “Dag Oty”, which in turn has a strong position in the market of Turkmenistan since 1999.

“Dag Oty” is one of the major suppliers (importer) and manufacturer (exporter) of medicines and medical products, representing on the local market the products of pharmaceutical and medical companies from various countries.



With the help of “Dag Oty”, more than 1400 imported medicines and medical products have been registered in Turkmenistan today.

With development of new technologies, the needs of inhabitants of our planet have been significantly increased and changed, which was influenced the search of new ways to adapt to modern society.

So, the individual enterprise “Dag Oty” did not stand aside, we expanded our horizons, mastered new areas of activity and followed international trends. Thus, more than five enterprises for various purposes appeared in the group of companies. One of them is the Economic Society “Bash Plastic”.

As a result of long-term work and within the framework of the environmental policy of Turkmenistan and the world community as a whole, in 2017 the management decided to expand the scope of activities, namely the production of non-woven material.

Today BASH PLASTIK offers high quality spunbond



Read more

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Place an order

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**Look around!
SPUNBOND is in every step!**

THANK YOU!

 **BASH PLASTIC TEAM**