

**MANUFACTURERS OF
FLEXIBLE PACKAGING**

**SPG PACKAGING
SOLUTIONS**



Being part of your product



The ability to anticipate the market determines a company's course and history.

This is why innovation has always been our main driving force.

We have our own Research and Development (R&D and Innovation) laboratories, where our highly qualified professionals work on new solutions to continuously improve the quality of our products, the service we provide and the experience of end consumers.

1. PACKAGING SOLUTIONS TO EXTEND SHELF LIFE

The FAO calculates that food waste per capita in Europe and North America is between 95 and 115 kg/year.

Food waste is an issue that concerns us all., which is why SP Group seeks formulas to extend the shelf life of the products packaged with our materials.

HOW ARE WE ABLE TO EXTEND SHELF LIFE?

USING BARRIER MATERIAL IN THE PACKAGING STRUCTURE

Barrier materials are designed to prevent oxygen, moisture and other gases entering or exiting the packaging. Their use ensures maximum protection for the packaged product, to prolong preservation time and guarantee food safety and hygiene. At the same time they improve the appearance of the product for end consumers.

Depending on the material, we can obtain a medium or high barrier, the choice of which will depend on the requirements of the product to be packaged.



MATERIALS SUITABLE FOR MAP (protective atmosphere)

MAP helps improve the preservation of the packaged food by replacing the atmosphere around the product with a protective atmosphere to increase its shelf life.

ADDING A CLOSURE TO THE PACKAGING

We are also able to extend **the shelf life** of products that have been opened by adding closures to the packaging. These allow the packaging to be re-closed after the product has been opened but not fully consumed. At SP Group we have a wide variety of closure options:

- **ZIP LOCK**

This is a re-closing system for pre-formed bags and pouches and is principally recommended for products that are not generally consumed in one go.



There are many products packaged in bags and pouches with zip lock closures, including: surimi, pet food, grated cheese, charcoal, washing powder, sweets, cereal...

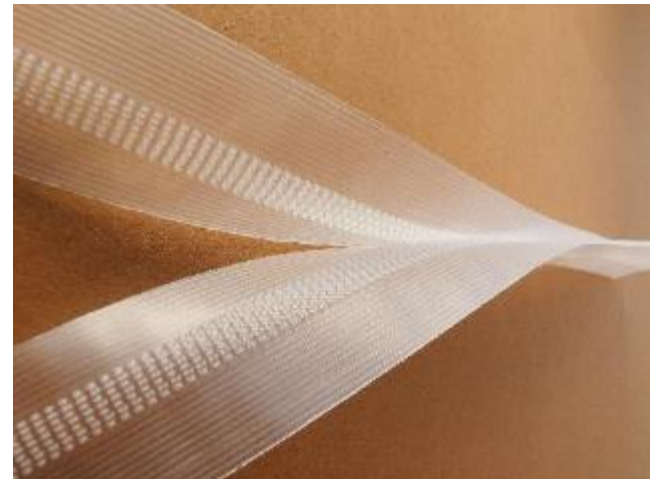


· **PRESS-LOK®** by **VELCROBRAND™**

Velcro provides a specific closure that is suitable for food contact:

- Its system includes a **high hook**, that is highly resistant when opened and recommended for powder-type products. Even if the closure becomes contaminated with product residue, it maintains the same opening and closure properties without being affected.

Velcro allows its brand image to be used on the packaging to help obtain better positioning. This is called co-branding and requires a contract with the company.



There are many products that we recommend this closure for, including: sugar, rice, grated cheese, fruit and nuts, coffee, sweets, pet food, seeds, fertilisers, laundry detergents, ...

· SPOUTS AND SCREWCAPS

SP Group has two spout application systems:

- **Side spout.** The pouch is filled **through the hole in the upper opening**. It can be filled manually or automatically.


The choice of type of spout and screwcap will depend on the needs of each client, on the product packaged and on the end user.



Market trend replacing blow-moulded packaging.

- **With the spout in the centre**, the client can only fill the pouch through this spout:

The spout must have the specific format required for positioning on the rails on which it is filled (generally automatic machines).

-  This type is used most for children's food products (fruit compotes, yogurts, baby food...) and for products that are going to be consumed directly from the pouch.



• RESEALABLE PACKAGING: R-CLOSING AND R-CLOSING EFFICIENT

Rclosing Efficient is a high-barrier flexible laminate with re-closing properties. It is used as a top lidding film for base webs principally made from our **APET EFFICIENT** material. This laminate is characterised by being more sustainable than others as it does not contain any chlorine products and has a reduced thicknesses.

RClosing is a material made of triple flexible laminate that is used as a top film for trays. It is a stable, resistant material that can be repeatedly re-closed.



We recommend this laminate for packaging: meat products, cheeses, baked goods,...



PACKAGING SUITABLE FOR VACUUM PACKING

Using materials suitable for vacuum packing allows food to be kept fresh for longer. The packaging becomes a second skin for the products, preserving it while maintaining its appearance and flavour as it slows the oxidation process.

At SP Group we have several structures to ensure you find the perfect combination of top film and base web for your product:

- RSE (PE)
- RFA (PE)
- BOPLUS (PE)
- RPA (PE)
- RST (PP)
- RPS (PP)




Processed meat products, sausages, pate, cheeses, smoked fish, meat, vegetables, pulses, etc.

· UV BLOCK FILTER TO PROTECT PRODUCTS FROM LIGHT

This is a UV-Visible filter for better food protection.

- Highly effective as regards food protection on both a sensory and microbiological level.
- As it is transparent, it does not affect the visibility of the food product.
- The filter does not affect the mechanical properties, slip, weld, etc. of the packaging.



 The UV BLOCK filter is used with oily products that are sensitive to light and affected by the oxydation processes produced by sunlight and/or artificial light. For example oily fish and fatty meats, and fried foods, such as crisps and nuts.

2. SUSTAINABLE SOLUTIONS

Concern for the environment means more and more users are demanding sustainable packaging.

SP Group is working hard to find new formulas that are more sustainable and allow us to reduce our carbon footprint.





HOW CAN YOUR PACKAGING BE MORE SUSTAINABLE?

BY USING BIODEGRADABLE MATERIALS

- **BIO FVSOL 60 and BIO FVSOL MATT N**

Totally biodegradable, compostable and biobased to meet standard EN 13432. Both are laminates with a PVOH (polyvinyl alcohol) base.

- **BIO FVSOL 60** stands out for its high rigidity and transparency. Optimal transparency allows the product inside to be seen clearly.
- **BIO FVSOL MATT N** is a 100% biodegradable black material that has a similar roughness to paper.
- **BOTH** can currently be used in VFFS and HFFS packaging machines, as well as with three-Weld bag.



BIO FVSOL 60 HAS THE OK COMPOST INDUSTRIAL CERTIFIED



- For the packaging to be totally biodegradable, the inks used have to be equally biodegradable. The printing techniques that can be used are rotogravure, flexography and digital.
- The sectors currently considered ideal for these materials are any where the products do not have a high moisture content.



BIO FVSOL 60 AND BIO FVSOL MATT N are used for products such as fruits and nuts, snacks and spices (sugar, flour, dry pasta, pulses...), pet food, cured sausages on string, etc.



BY REDUCING THE MICRONS IN PACKAGING

• SOL RANGE

SP Group has its **SOL Range** with 5 different models (each with a specific application). Its optical and mechanical properties, together with its technical qualities, make it the most efficient option in the world of high-barrier packaging solutions.

The **SOL** film is a high-barrier multilayer laminate that provides the highest quality protection with minimum thickness, from only 25 μ !

As well as the benefits of energy saving and waste reduction, the **SOL** film has the advantage of not containing chlorine products (PVDC).

SOL RANGE VARIETIES: VSOL/FSOL, SOL EFFICIENT¹, SOL NATURAL, SOL WHITE.



¹SOL EFFICIENT is compatible with our tray2tray project.



THE SMARTEST COMBINATION

APET RESILIENT



SOL EFFICIENT

A material recommended for base web thermoformable films for welding with polyester, which makes it ideal for participating in a circular economy as part of **SP GROUP'S Tray2Tray** project.

Peelability can also be added. Available in several colours.

A special high-barrier flexible laminate belonging to the **SOL range**. Welds directly to polyester trays and withstands heat treatment processes. It is eco-efficient as it can be used in very reduced thicknesses, allowing corresponding savings to be made.





BY USING OFFSET PRINTING

The offset printer is environmentally friendly.

Why?

- The offset printer uses solvent-free ink drying technology. As the ink does not contain solvents, nothing evaporates, which is good news for the ozone layer.
- The inks use an EB (Electron Beam) curing process, which provides instant drying and hard setting.
- The energy consumption is very low.
- The ink is used more efficiently. Up to 70% less ink is used in comparison to conventional inks.
- The printing plates, manufactured by us on aluminium laminates, are 100% recyclable.





USING DIGITAL PRINTING

Digital printing is also environmentally friendly.

Why?

- The inks are not diluted in solvent meaning, as with offset printing, no solvent is released into the atmosphere.
- Digital printing does not use printing plates; a file is sent directly to the machine and this reproduces the image on the material. This means there is no pollution from producing the plates.





JOINING OUR TRAY2TRAY PROJECT

· WHAT IS TRAY2TRAY?

Tray2Tray is an environmental sustainability project based on recycling and re-use.

Tray2Tray is a closed circular model where the excess plastic resulting from the manufacturing process, any surplus resulting from defective **SP Group** APET laminates, or the subproducts resulting from packaging foods, is separated to be re-introduced into the production process.

Tray2Tray turns so-called waste material into second-generation raw material that can be used to form part of a new tray or other type of packaging.



3 ● SOLUTIONS TO HELP YOUR PRODUCTS STAND OUT.

Today packaging is considered an advertising space that can be used to get consumers' attention by employing several elements of personalisation.

A potential consumer's first contact with a product at the point of sale is the packaging, which is why good design and printing are fundamental.

HOW CAN WE STAND OUT FROM THE CROWD?

DIGITAL PRINTING

This printing technique is ideal for **short runs**, meaning it is a powerful ally of marketing departments for strategies aimed at pre-launch and market tests, promotions and smaller volume product production. One of the main advantages is that designs can be combined (variable).

You can also make the most of your designs, as the **HP SmartStream Mosaic** software for personalising images, texts and colours allows you to create unlimited variations of your design, maximising the impact on the shelf.



SHAPED PREFORMED BAGS AND POUCHES.

By using perforations, you can give your bags and pouches the shape you want.



COLOURED RIGID AND SEMI-RIGID BASES

You can personalise your base web with the colour of your choice. We also have **metal** and **glitter** finishes. These are perfect for ensuring your product stands out on the shelf at the point of sale, where you are competing to be chosen above other similar products.



SCENTED FILMS

Scent can be added to both the inside and the outside of the packaging to create an improved user experience. The transparency of the film and the strength of the seal are not affected.

- Personalised or standard scents.
- 100% suitable for contact with food.
- Transparent finishes.
- Differentiation.

NATURFILM AND NATURTRAY

Laminates with paper to give packaging a more natural and traditional look.

Available in a variety of paper finishes, printed or non-printed using any printing technique.





| PAPER TOUCH PLUS

A special finish that gives the packaging a **paper feel** and which can be printed via registration or fully covered, achieving a great feel.

Paper Touch Plus is a solution that provides a paper texture that is very similar to the real thing, even though it is plastic. This material is sure to grab the attention of consumers. Its great advantage is that it provides desired visual effect, while being able to be used in machines and with products that are not compatible with paper structures.

It can be applied to our materials, whether on spools or in pre-formed bags and pouches.





SP EMBOSS

This is the new application of relief through thermoforming that is applied to the surface of the bag once it has been formed.

This personalisation gives the packaging a visually attractive and elegant appearance. It can be combined with the design to ensure that the print coincides with the registration of the relief applied. It can also be used for Braille text.

The ideal material for applying **SP EMBOSS** is paper, which is why we consider our Naturfilm range the best for this type of personalisation.

It can be applied to Doypack pouches, three-weld bags, and bags and pouches with side pleats to ensure your packaging is attractive with that special touch.



SOFT2TOUCH

The aim of this material is to improve the aesthetics of the packaging, while providing a smoother feel.

SOFT2TOUCH is very soft and smooth, similar to fabric and more waterproof and greaseproof than paper.

This new material is used in a complex with any other material, and in pre-formed bags or with spools, as something extra to ensure the differentiation of the packaging.

It is currently only compatible with the digital printing technique.

SOFT2TOUCH is highly resistant to friction and has good lamination strength.

SOFT2TOUCH is suitable for any product. The properties needed to maintain the optimum conditions depend on the materials with which it is used in a complex.

Combine **SOFT2TOUCH** with [HP Mosaic printing](#) to revolutionise the shelves.



4 ● SOLUTIONS FOR HEAT TREATMENT PROCESSES

Heat treatment processes are used to preserve food products, ensuring quality and food safety.

These processes include a series of techniques that help destroy the microorganisms that can damage the food.

WHAT SOLUTIONS DO WE OFFER?


SP Group offers packaging materials that are able to withstand high temperatures for heat treatment processes such as:

- **Sterilisation**
- **Pasteurisation and hot-fill**
- **Microwaveable**



| VSTEAM VALVE

This is a valve patented by **SP Group** to be used in pouches and bags for cooking food in microwave ovens. The packaging withstands the pasteurisation and sterilisation of the product in industrial autoclaves with counter-pressure, without risk of breakage or losses (under controlled conditions). The weld opens in the microwave to allow the steam to escape and the food to cook.

 It is used for products such as vegetables, seafood, processed foods with sauces...



5.

SOLUTIONS FOR OPTIMUM BREATHING

There are certain foods that due to their morphology need packaging with perforations that allow the product to breathe inside the packaging.

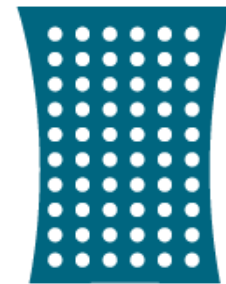
HOW CAN WE ACHIEVE OPTIMUM PRESERVATION?

MACRO-PERFERATIONS AND MICRO-PERFORATIONS

Perforations (holes) punched into the film itself, which allow the packaged product to transpire.

The size of the perforations may vary. The ones we use at **SP Group** are 5 mm and 1.5 mm in diameter. They are mainly used on spools that are later used for flow-packs made in a horizontal machine.

Cured sausages (on string) such as fuet, chorizo... and fruit and vegetables.



LASER MICRO-PERFORATIONS

These are micro-perforations that are made with a laser on materials that are used to package foods that need to breathe.



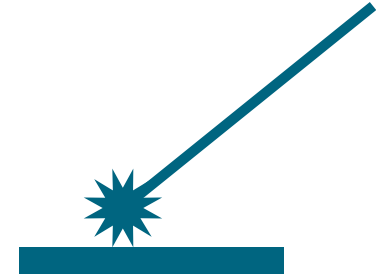
6. SOLUTIONS FOR EASY-TO-HANDLE PACKAGING

On-the-go packaging is currently a major trend. We are witnessing an increase in ready meals, frozen meals and pre-cooked meals for eating on the go.

This influences the usability of the product –packaging now needs to incorporate elements that provide ergonomics, functionality and ease-of-use.

| LASER PRE-CUT FOR EASY OPENING

The mouth of the bag is pre-cut to ensure a cleaner opening. The pre-cut is made on the outer layer of the structure, keeping the properties that guarantee the tightness of the packaging intact.



| SIDE NOTCHES, A MORE INTUITIVE OPENING

These are small incisions (notches) that allow the pouch or bag to be opened easily. The notches are located on both sides of the bag's mouth.



7. CHILD-SAFE PACKAGING SOLUTIONS

There are currently two types of solutions, those that make it more difficult to open the packaging, and those that prevent loose pieces of the packaging being swallowed.

| BABY-FOOD CAPS

Baby-food spouts and screwcaps have an anti-choking system with holes that allow air to flow through in the event of swallowing.

Option of inserting PE or PP based spouts.

The pouches with spouts are sent for use with or without rails. The screwcaps are separate.

Clients can choose the colour of the spout/screwcap.



CHILD DETERRANT - STRONG

Child deterrant - strong is a safety closure for pre-formed pouches.

It includes a zip-lock closure that makes it more difficult to open, especially for young children. It is designed to ensure a certain dexterity and greater effort is required to open the packaging than traditional closures.

This closure is suitable for any material welded to PE.

The use of laser pre-cut is essential for the system to work correctly.



It is used for toxic products, such as laundry detergent capsules, supplements, and anything to be kept out of the reach of children.

“You never get a second chance to make a first impression” Oscar Wilde.

8. PRINT SOLUTIONS

A products packaging is its letter of introduction, and it plays an important role in the purchasing decisions of end consumers.

Each printing technique offers manufacturers a wide range of options, as by combining them they adapt to requirements of the length of run and design.

ROTOGRAVURE

This technique can be applied to any material. The high-intensity inks create glossy finishes of excellent quality.

If the level of detail and complexity of the creative design is very high, this technique is the best option as it transfers pictures and blends very well. Up to 9 colours can be used.

- Ideal for designs with a lot of blending.
- High quality graphics.
- This system will be profitable for long runs of 25,000 m² and over. High print speed.
- Can be used with several materials.



FLEXOGRAPHY

Although HD flexography produces high-quality print, this technique still presents certain difficulties when it comes to defining details. Text in the negative in the CMYK colour model should be avoided, as should very fine text in multiple screenings.

Blends are not recommended. It is a system that is profitable in medium to high runs of 15,000m² or more .

SP GROUP boasts the latest technology on the market to provide the best quality possible for flexographic work.



OFFSET

The **Offset** printing system is powerful and versatile. Our hybrid printing combines offset and flexography and has a flexographic-printing body and a central drum system that ensures more opaque colours and incredible definition.

Offset provides high quality in relation to the chosen material (paper or plastic film), well-defined typography, sharp dots and clean stochastic screen, and is comparable to rotogravure in terms of visual quality.

This technique is ideal for those products that have a high rotation of designs as it is perfect for short and medium-length runs.



DIGITAL

Digital printing does not require plates and has no added costs, with the designs being reproduced directly from the computer. The quality is very high, very similar to offset and rotogravure printing, but production time is shorter.

Digital printing is principally aimed at small runs, and is very useful for pre-launch and markets tests, and for offers and smaller volume products, among others.

The inks used in digital printing are turned into seven-colour processes.





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