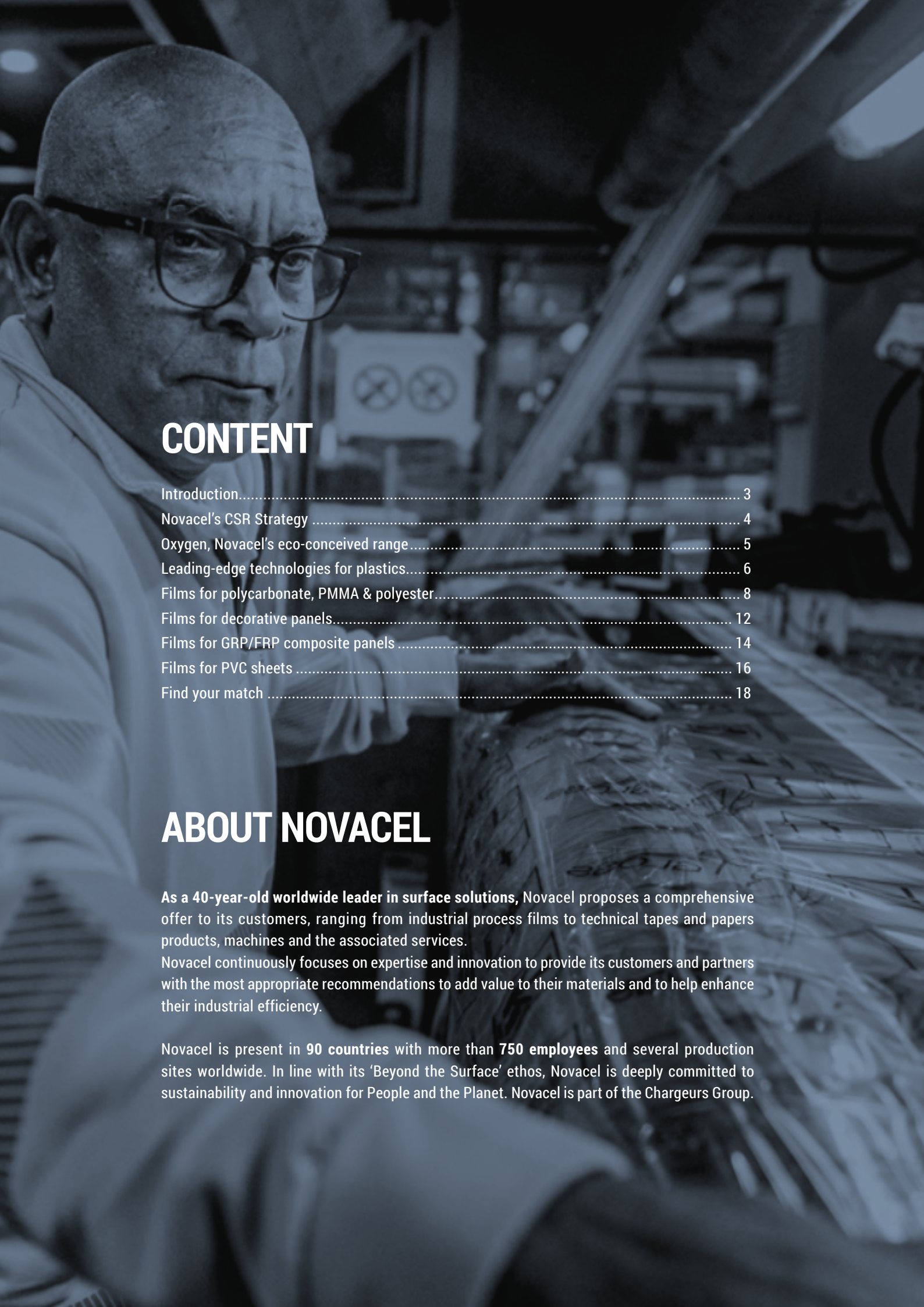
PLASTIC SHEETS

PROCESS & PROTECTIVE FILMS, MACHINES & LAMINATORS

NOVACEL
Beyond The Surface



CONTENT

ABOUT NOVACEL

As a 40-year-old worldwide leader in surface solutions, Novacel proposes a comprehensive offer to its customers, ranging from industrial process films to technical tapes and papers products, machines and the associated services.
Novacel continuously focuses on expertise and innovation to provide its customers and partners with the most appropriate recommendations to add value to their materials and to help enhance their industrial efficiency.

Novacel is present in **90 countries** with more than **750 employees** and several production sites worldwide. In line with its 'Beyond the Surface' ethos, Novacel is deeply committed to sustainability and innovation for People and the Planet. Novacel is part of the Chargeurs Group.

NOVACEL, YOUR EXPERT FOR PLASTIC SURFACES

Plastic is a high-end material offering technical performances with endless possibilities. It is often chosen to replace other materials to shape the future. This is why, plastic is still expanding, and producers are working hard to develop its contribution for a more sustainable world. Thermoplastic sheets and films are used almost anywhere: building and architecture, automotive and mass transit, consumer goods and interior designs, visual communication and signage, industry and medical markets.

Boosting creativity, **the broad diversity of plastics** combines different material bases (such as acrylic or PMMA, polycarbonate, PVC, polyester, ABS, polystyrene and blends of plastics), together with endless surface finish colors and aspects.
Due to its high esthetic value and the **intensive converting processes** it goes through - thermoforming and fabrication for example - plastic is vulnerable and subjected to stress. To **avoid damage** from impacts, soiling and scratches, the **surface material needs superior care** right from the beginning of extrusion or production and up to the finished product.

As your committed and reliable partner, Novacel makes a point of staying ahead of new technical developments and changes in technology in order to remain at your side, bringing you **peace-of-mind processing and protective solutions** that are safe and high-quality.

A DEDICATED RECOMMANDATION TEAM

The materials market is vast and diverse: metals, plastics, glass, decorative laminates, each with unique surfaces and manufacturing processes.

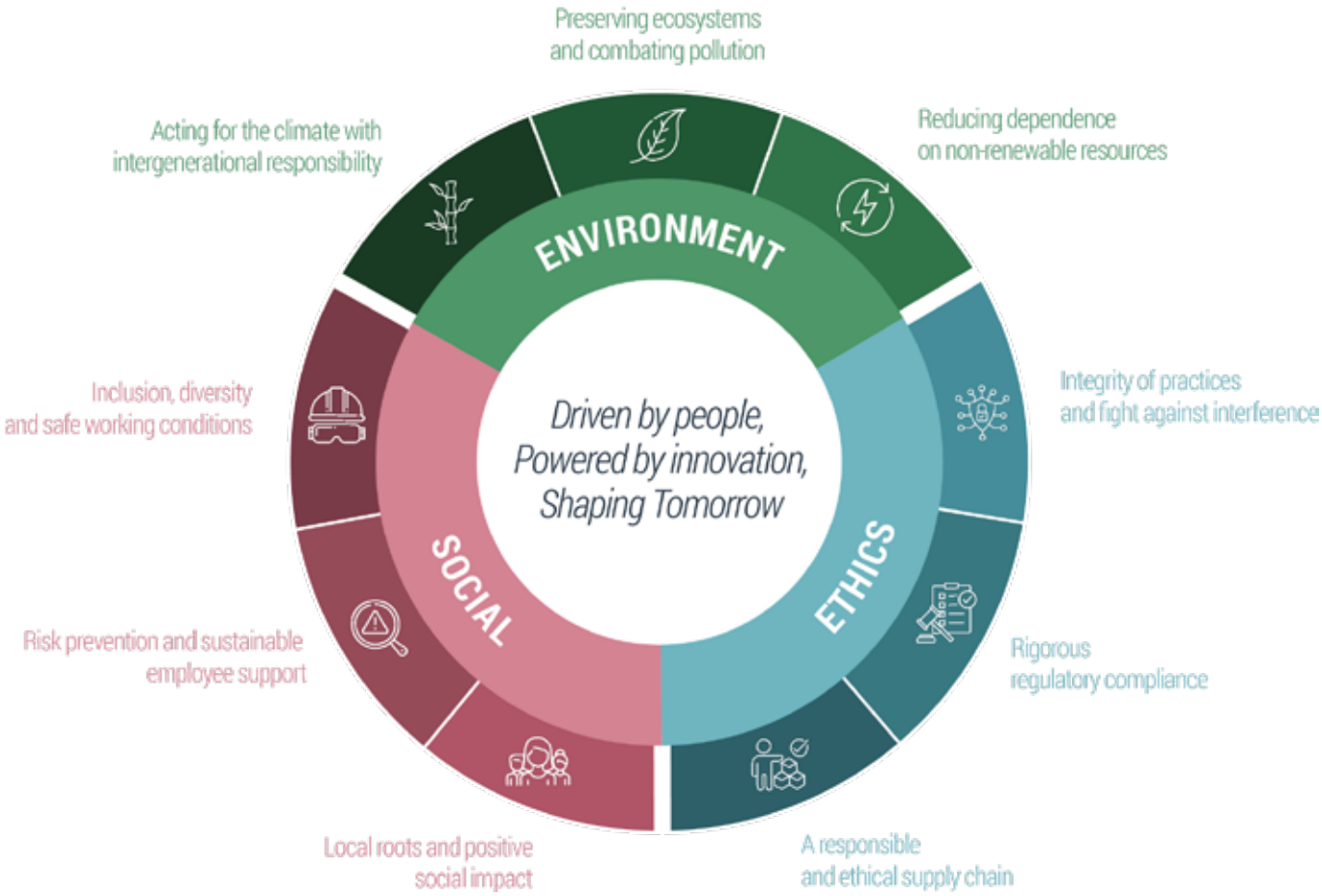
At Novacel, we have mastered these materials and put our expertise at your service to find the best surface solutions that meet your quality, productivity, and durability requirements.

Our recommendation team is dedicated to advising you on the most suitable and customised process and protective films. This service, offered at no extra cost, is supported by a cutting-edge R&D laboratory equipped for detailed surface analysis and product testing.

By continually monitoring market trends and collaborating closely with our customers and partners, we strive for optimal results: minimal waste, high productivity, and a flawless end product.

NOVACEL'S CSR STRATEGY

Aware of the current environmental, social, and ethics challenges, Novacel is committed to an ambitious and responsible CSR approach. This strategy is embodied through nine concrete commitments that guide our daily actions and strengthen our contribution to sustainable development, respecting all our stakeholders.

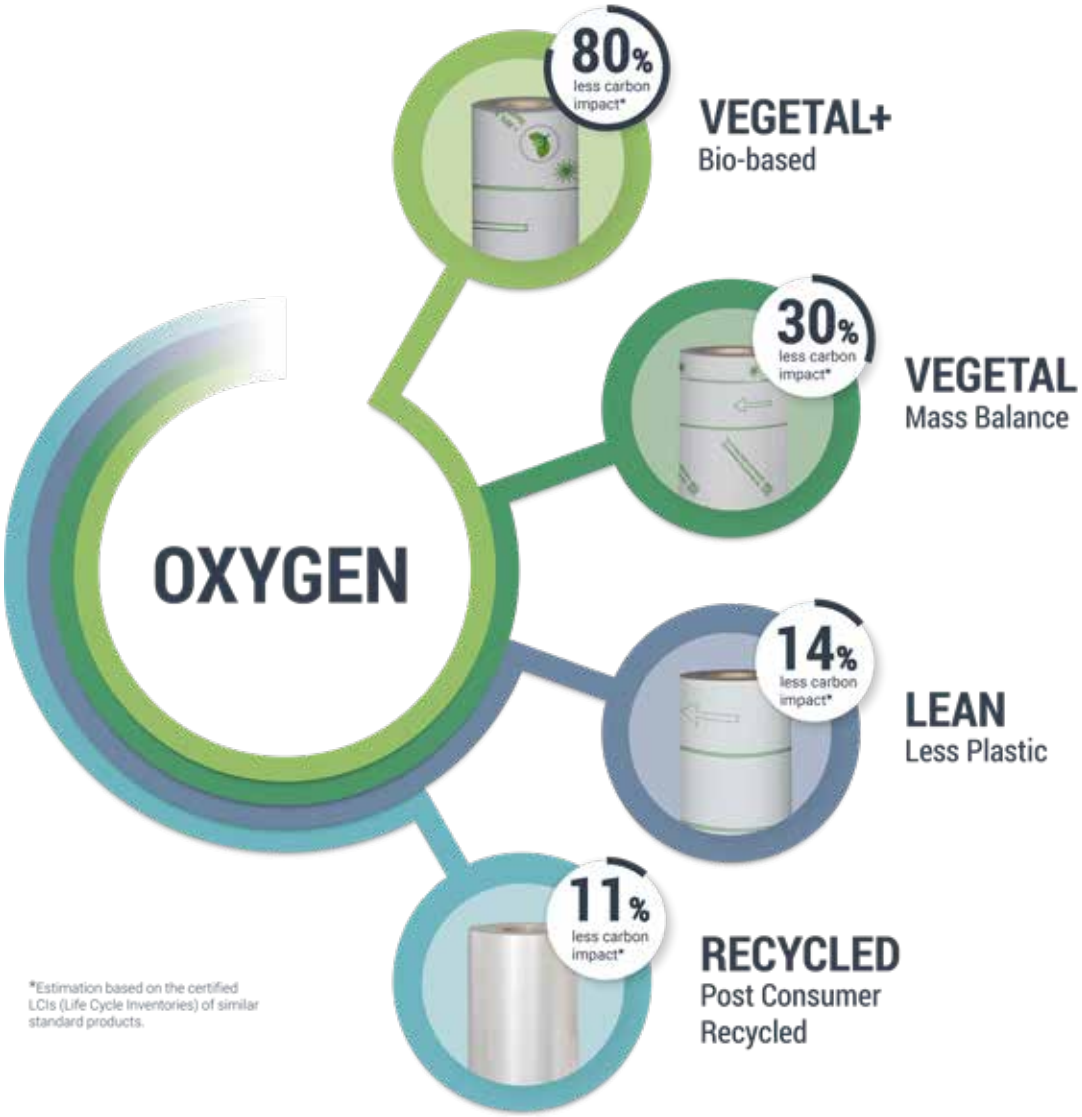


OXYGEN, NOVACEL'S ECO-CONCEIVED RANGE

Manufacturers of plastic sheets and films are driven by sustainability and involved in preserving the environment. They are committed to reduce their carbon footprint by producing more eco-responsible materials either with recycled content or mass-balance approach.

In this context, on top of its commitment to responsibility, **Novacel has designed the first eco-conceived range of process and protective films**, adapted from its successful and well-established products engineered for the plastic sheets and films market.

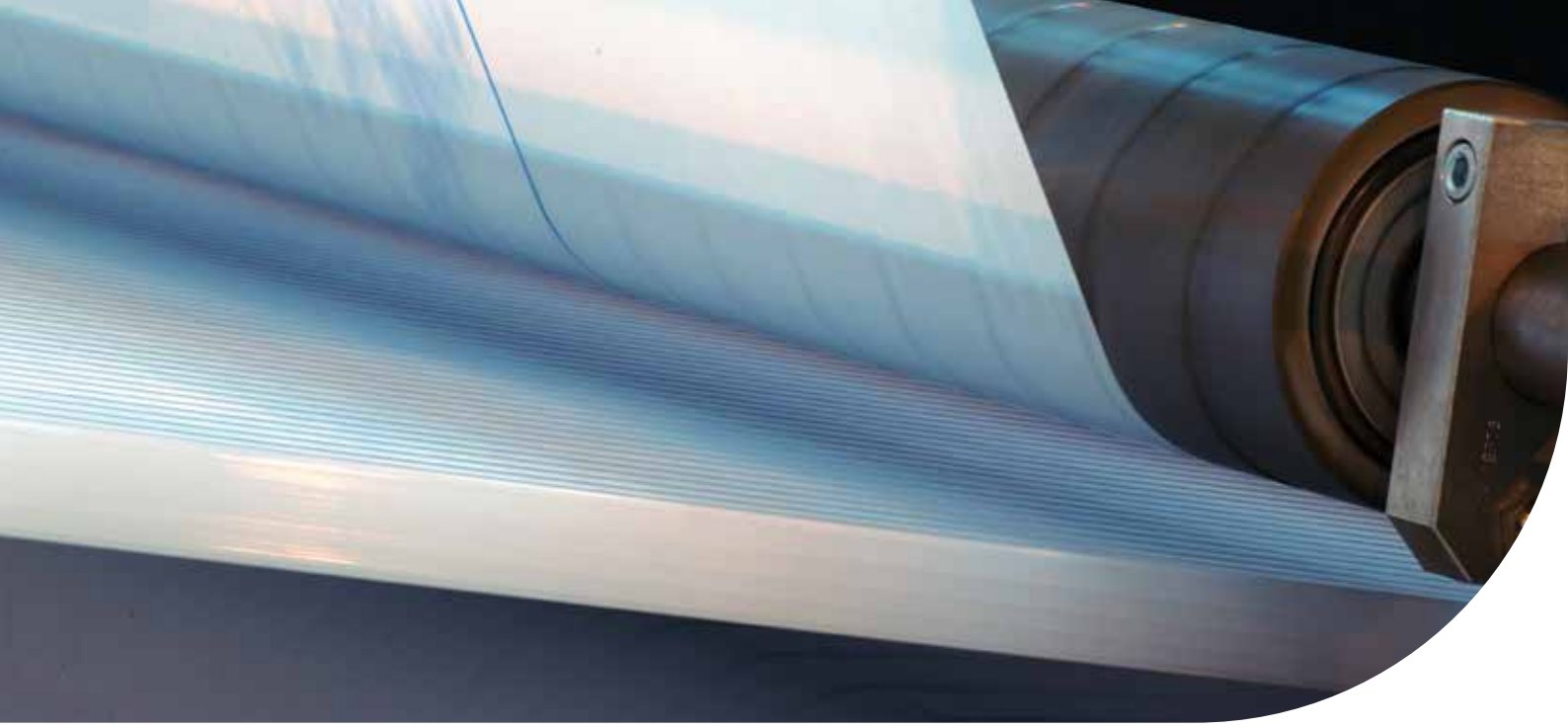
Novacel OXYGEN, 4 technologies to reduce your carbon impact



Novacel is certified ISCC+ for its Oxygen vegetal range. By sourcing ISCC-certified mass-balanced material, Novacel contributes to replace virgin fossil resources with renewable feedstocks and reaffirms its commitment to best environmental practices.

Novacel is certified Plastica Seconda Vida (audited by SGS) for its Oxygen recycled range. This certifies the percentage of recycled content in our products. It is a guarantee of trust and credibility towards our customers worldwide.

Find all Oxygen codes and their specificities in green in the tables inside the brochure.



LEADING-EDGE TECHNOLOGIES FOR PLASTICS

Novacel is **the only surface solution designer**, **mastering three leading-edge technologies** to offer the widest choice of solutions for processing plastic sheets and films. Thanks to more than 40 years of experience and cooperation, Novacel helps you to determine the best option between **adhesive coated films or papers**, or **adhesive uncoated coextruded films**, depending on:

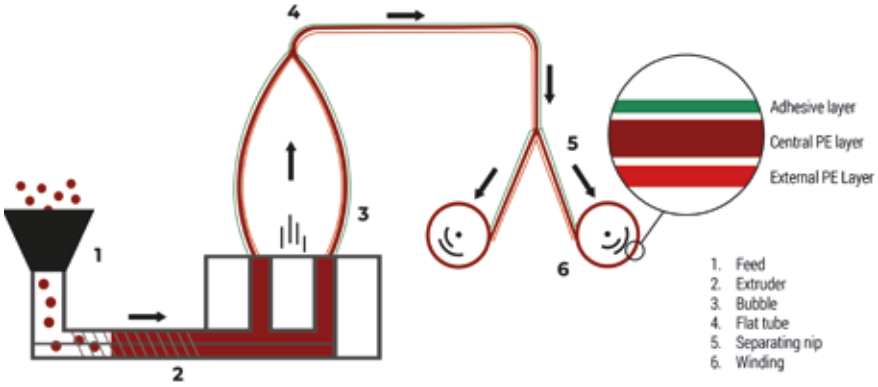
- **The chemistry of the plastic base** (PMMA, PETG, PC, PVC…)
  and **the surface finish** (solid, foamed or multiwall sheets, with a glossy, satin, smooth or textured aspect)
- **The hard-coat or varnish covering the surface** for improvement features (anti-fog, anti-fingerprint, abrasion resistant, etc.)
- **Secondary fabrication and converting processes** (drilling, sawing, routing, laser cutting, bending, screen or digital printing, oven drying, vacuum-forming, etc.)
- **Constraints due to the end-market applications**: easy-peel films for large format in construction or glazing, very good edge adhesion for machine guards, surface energy care for printed materials such as signs & displays or heat-resistant films for vacuum forming.

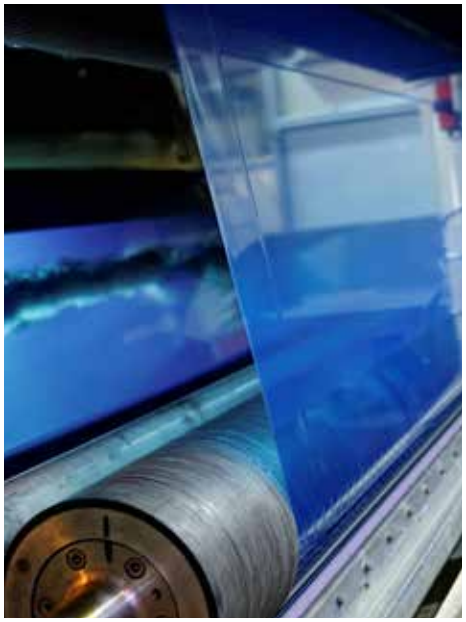
WHAT ABOUT A NEW DEDICATED GRADE?

For a new product design or product adjustment, after formulation work, and before moving on to industrial production, tests are conducted in the **Novacel technical center** using scale trials on extrusion and coating pilot lines. This allows properties to be adjusted and the process ability of new materials or recipes to be verified in a realistic production environment.

COEXTRUDED FILM TECHNOLOGY (COEX)

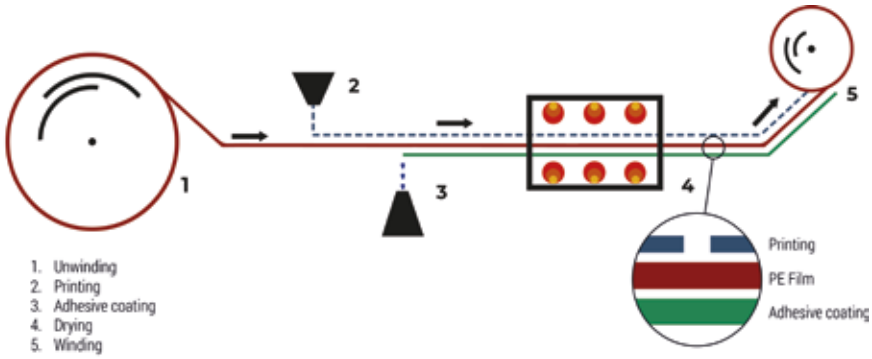
The uncoated adhesive layer is formulated with specific adhesive components which are chemically linked to the polyethylene layers during the film extrusion. These heat sensitive coex films, to increase adhesion on surface, are dedicated to specific secondary operations on plastics: thermoforming, annealing, or printing. They have low defects, high clarity and are totally residue-free. They are also easily recycled.

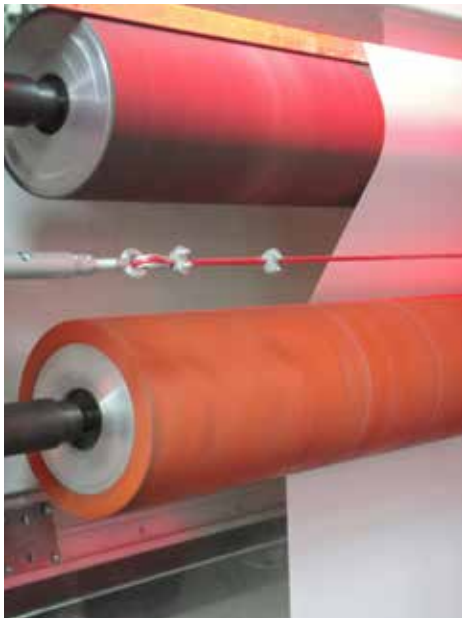




COATED FILM TECHNOLOGY

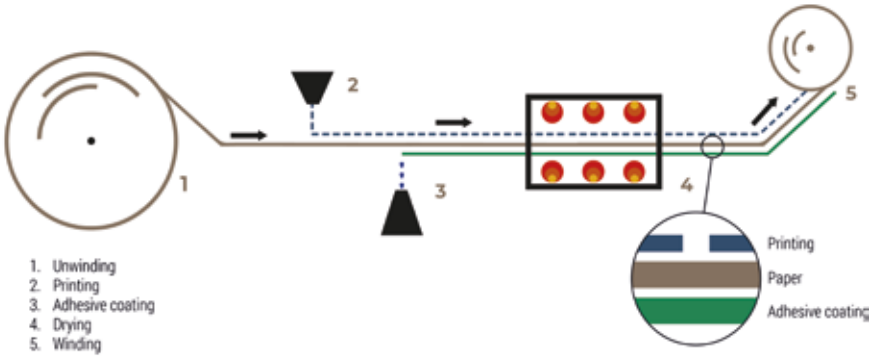
A formulated natural rubber or water base acrylic liquid adhesive is coated on a polyolefin backing for a 100% tailored solution. Dedicated to “hard to stick on” surfaces such as coated, textured or mat finishes, or to withstand specific constraints such as long outdoor ageing, strong edge adhesion during mechanical processing such as routing, or to provide re-tack properties to the surface after removal for quality control.





COATED PAPER TECHNOLOGY

A kraft paper backing is coated with a latex adhesive. This technology is used for polycarbonate and acrylic sheets for tough processes such as flame polishing and some CNC router machining in which very strong adhesion is preferred. Coated paper films are appreciated for their easy-to-write ability on top. They are also considered to be a more natural and sustainable solution.



FILMS FOR POLYCARBONATE, PMMA & POLYESTER

Engineering thermoplastics such as acrylic (PMMA), polycarbonate (PC) and polyester (PETG) materials are very popular for their creative and functional design possibilities. The beauty and clarity of these surfaces require a process and protective film applied as standard supply directly on the extrusion lines to **avoid damages**. It is also necessary for secondary converting processes.

Used as a "second skin", it **prevents non-quality cost and production waste**, as well as **maintaining the pristine esthetic appearance** of the finished products.

The trend for new high-value functional layers on plastics create a need for specific solutions. Coatings (anti-fog, abrasion resistance, anti-fingerprint, for example), along with surface textures (ranging from gloss, polished, velvet to mat) will determine the best film choice.

Depending on the application, plastic material can be extruded in different thicknesses as **films** (under 2 mm thick) or as **sheets** (over 2 mm).

SOLUTIONS FOR THERMOPLASTIC FILMS

Thermoplastic films are flexible and are subjected to specific stresses due to die cutting, printing, lamination or forming operations. They are sensitive to scratches up to final use and require specific care based on the right process film. **Low gel content processing film**, **soft and stable adhesion** and **easy peel-off with no damage or curling** of the surface are the main benefits of Novacel films.

NOVACEL ASSETS

- **High-clarity, low-gel films**
- **Heat-resistant** backing
- **Stable adhesion** through drying and forming operations
- **Easy and soft peeling** at removal

Process and Protective films					Thermoplastic films < 2 mm			
Grade	**Technology**	**Thickness**	**Thermoforming**	**Properties**	**Plastic finish**	**PC**	**PMMA**	**PET**
9246	Uncoated **coex films**	38 µm / 1.5 mils	✓	Easy peel	Glossy	✓	✓	✓
9078		40 µm / 1.6 mils	✓	Heat resistant & easy peel	Glossy	✓	✓	✓
9003		40 µm / 1.6 mils	✓	Soft peel	Glossy	✓	-	-
9839		40 µm / 1.6 mils	✓	Smooth peel	Glossy	✓	✓	✓
9026		50 µm / 2 mils	✓	Zipping & easy peel	Glossy	✓	✓	✓
4784	Acrylic water base adhesive **coated films**	50 µm / 2 mils	-	Retack feature, low adhesion	Glossy	✓	✓	✓
4768		30 µm / 1.2 mils	-	Retack feature, low adhesion	Glossy, non-glare	✓	✓	✓
4381		35 µm / 1.4 mils	-	Retack feature, medium adhesion	Fine velvet - fine mat	✓	✓	-
4374		40 µm / 1.6 mils	-	Retack feature, high adhesion	Mat or textured	✓	✓	-

NOVACEL'S CHOICE: 9078 - The Coex solution for polycarbonate and acrylic films

- **Perfect match for flexible surfaces** with no curling or lifting
- **No disruption to plastic film energy** after removal
- **Withstands drying cycles** during screen printing operations with no wrinkling or increased adhesion
- **Easy and soft peeling at removal**, 100% trouble-free

SOLUTIONS FOR THERMOPLASTIC SHEETS

Thermoplastic sheets are rigid with a broad thickness range and are usually processed in secondary operations such as laser cutting, routing, drilling, bending, printing, lamination and thermoforming.

Novacel provides the solution best suited to **each sheet type and one tailored for your process**. Thick high-value thermoplastic sheets are sometimes hard-coated to get superior abrasion resistance. To maintain it, they deserve **specific thick, highly-engineered process and protective films**.

NOVACEL ASSETS

- **A wide range** of coex or coated adhesive solutions
- **Adhesion reduced** after thermoforming for easy removal
- **Adhesion level adapted** to the surface and to withstand severe, automated secondary operations
- **Easy and soft peeling**, 100% residue free

Process and Protective film					Thermoplastic sheets > 2 mm			
Grade	**Technology**	**Thickness**	**Thermoforming**	**Properties**	**Plastic finish**	**PC**	**PMMA**	**PET**
9839	Uncoated **coex films**	40 µm / 1.6 mils	✓	Smooth-peel	Glossy	-	✓	-
9026		50 µm / 2 mils	✓	Zipping & easy-peel	Glossy	✓	✓	✓
9872		50 µm / 2 mils	✓	Heat resistant, zipping & easy-peel	Glossy	✓	✓	-
9020		60 µm / 2.4 mils	✓	Zipping & easy-peel	Glossy	-	✓	-
9816		65 µm / 2.6 mils	✓	Smooth-peel	Glossy	✓	-	-
9813		65 µm / 2.6 mils	✓	White paper replacement scratch-resistant & zipping easy-peel	Glossy	✓	-	-
9002		30 µm / 1.2 mils	✓	Easy-peel	Multiwall sheets	✓	✓	-
4768	Acrylic water base adhesive **coated films**	30 µm / 1.2 mils	-	Low adhesion	Glossy / Multiwall sheets	✓	✓	✓
4368		35 µm / 1.4 mils	-	Medium adhesion	Coated sheets, non glare	✓	✓	✓
4614		50 µm / 2 mils	-	White film, medium adhesion	Glossy	-	✓	-
9310		60 µm / 2.4 mils	-	Brown paper replacement, scratch-resistant, medium adhesion	Glossy	✓	✓	-
4631		65 µm / 2.6 mils	-	White film medium adhesion	Glossy	-	✓	-
9106		60 µm / 2.4 mils	-	White film, high adhesion	Mat & textured	-	✓	-
9878		100 µm / 4 mils	-	White scratch resistant film, very high adhesion	Abrasion-resistant coated sheets	✓	✓	-
4748	Rubber latex adhesive **coated papers**	127 µm / 5.1 mils	-	Brown Kraft polycoated paper	Glossy	✓	✓	-
4712		102 µm / 4.3 mils	-	Brown Kraft paper	Glossy	✓	✓	-

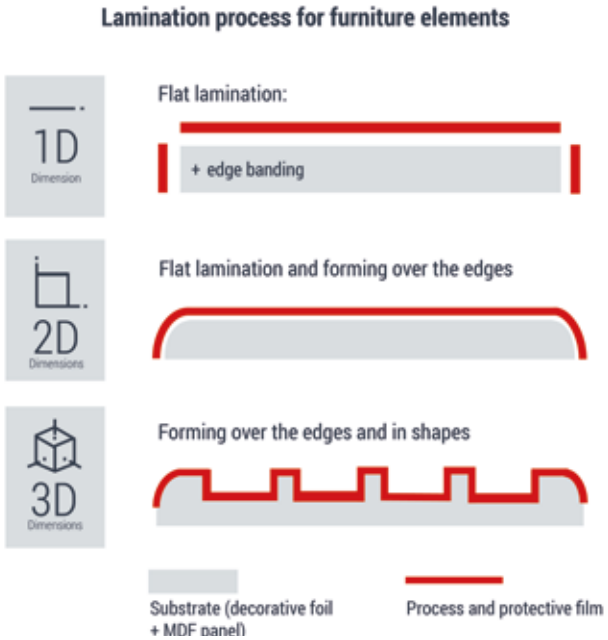
NOVACEL PREMIUM PAPER REPLACEMENT SOLUTIONS

- **Resistant processing film** for tough fabrication of the sheets, such as CNC routing, flame polishing
- **Great flexibility** thanks to the ability to peel, check the surface and re-tack the film
- **Sheets can be heat bent or thermoformed** with the paper replacement remaining on surface
- **Easy writable paperlike aspect** to keep this appreciated historical feature of coated paper
- **Stable adhesion** even after long storage whatever the climate conditions: humidity, heat, temperature variation.

NOVACEL'S CHOICE: 9813 - The Coex solution for thermoforming

- **Great chemical affinity** for different polymers sheets
- **Adhesion features for each process**:
  - Strong adhesion on flat sheets to withstand fabrication operations, including the use of automatic tools
  - Dropped adhesion after vacuum-forming to ease film removal
- **High-performance film**: controlled thickness, bi-directional elongation from extrusion process and scratch-resistant film formulation
- **Easy and soft peeling at removal** after thermoforming

FILMS FOR DECORATIVE PANELS



Decorative surfaces based on PP, PVC or PET foils or coextruded ABS/PMMA thin sheets, are widely used for furniture and interior decoration applications such as kitchen, bathroom, office furniture and shop fittings.

These materials are coated with a varnish to offer additional features such as improved scratch and chemical resistance, in addition to the more recent anti-fingerprint effect.

The high-value decorative materials require **premium-quality processing solutions** to **withstand the entire fabrication process** for furniture elements.

To shape the panels, many industrial options are available, based on technologies such as 1D (flat lamination), 2D (wrapping) and 3D forming (membrane and vacuum press).

NOVACEL ASSETS

- **High adhesion level** to the surface finish to remain as a second skin during panel manufacturing for a flawless finish
- **Optimum edge preservation** during 2D and 3D processes
- **No imperfections or residues** at peel off

Process and Protective films				Decorative films & sheets		
Grade	**Technology**	**Thickness**	**Features and properties**	**Surface finish**	**1D & 2D**	**3D**
4346	Acrylic-water base **coated films**	40 µm / 1.6 mils	Low-adhesion, high-quality clear film	High gloss	✓	✓
4609		50 µm / 2 mils	Blue film, medium-adhesion	Glossy	✓	✓
4540		50 µm / 2 mils	Medium-adhesion	Glossy	✓	✓
4365		50 µm / 2 mils	Medium-high adhesion	Mat & smooth	✓	-
9120		60 µm / 2.4 mils	Blue film, high-adhesion, stiff film for 3D forming	Mat coated AFP or textured	✓	✓
3050		**60 µm / 2.4 mils**	**Oxygen vegetal grade, high adhesion, blue stiff film for 3D forming**	**Mat coated AFP or textured**	✓	✓
9556		60 µm / 2.4 mils	High-adhesion, stiff film for 3D forming	Mat coated AFP or textured	✓	✓
4118	Rubber-base **coated films**	50 µm / 2 mils	Blue film, high-adhesion	Mat coated AFP or textured	✓	✓
4160		60 µm / 2.4 mils	High-adhesion	Mat coated AFP or textured	✓	✓

NOVACEL'S CHOICE: 9120 - The process film for 2D and 3D forming

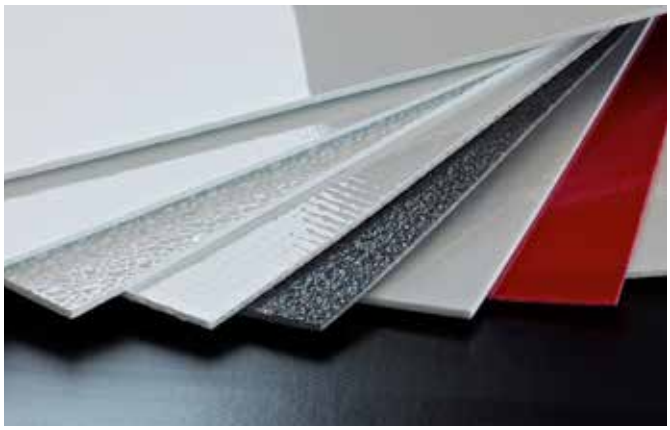
- **A perfect match for mat anti-finger-print surfaces** with no lifting, thanks to its high-adhesion formulation
- **Great film conformability** for perfect edge fit during 2D and 3D processes
- **Precise cut around panel edges** with no risk of contamination or defects trapped under the process film
- **Safe removal of the film**, leaving a pristine, 100% residue and defect-free surface

FILMS FOR GRP/FRP COMPOSITE PANELS

FRP (Fiberglass Reinforced Plastics) or GRP (Glass Reinforced Plastics) are composite materials. They are used in the Recreational Vehicle (RV) and Caravan industry for exterior sidewall, roof and even interior panels. They are also popular in new areas such as hygiene and medical applications.
Available in surface finishes ranging from high gloss to smooth or matt, GRP/FRP panels require a surface solution for fabrication operations such as drilling, sawing and milling. Novacel offers **extra-large film width** (over 2800 mm) adapted to FRP/GRP production sizes.
Novacel has engineered a specific range of high-quality low-gel content films **available in coated or coex versions**.

NOVACEL ASSETS

- **Adhesion to match surface finishes** from high gloss to mat during panels manufacturing
- **XXL film size**
- **No imperfections or residue** at film removal



NOVACEL'S CHOICE: 9056 - The coex film for GRP/FRP composite panels

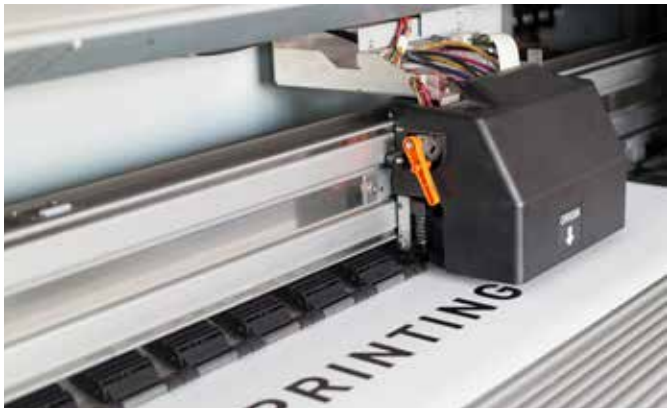
- **Easy to apply** on continuous GRP lines
- **Available in large widths** (up to 3200mm)
- **High-clarity** transparent film for better-quality control on GRP finish
- **Ideal adhesion** to withstand GRP fabrication processes

Process and Protective films				GRP/FRP Composite panels
Grade	**Technology**	**Thickness**	**Features and properties**	**Surface finish**
9026	Uncoated **coex films**	50 µm / 2 mils	Low adhesion, easy-peel	High gloss
9872		50 µm / 2 mils	Low-medium adhesion, easy-peel	
9046		50 µm / 2 mils	Medium adhesion, easy-peel	
9056		50 µm / 2 mils	High clear film, medium adhesion, easy-peel	
9057		70 µm / 2.8 mils	Medium adhesion, easy-peel	
4768	Acrylic water base **coated films**	30 µm / 1.2 mils	Low adhesion	High gloss
4407		55 µm / 2.1 mils	Low adhesion	
8100		64 µm / 2.5 mils	Low adhesion	
4328		50 µm / 2 mils	Medium adhesion	Mat

FILMS FOR PVC SHEETS

PVC sheet is a highly successful **cost-effective material**. Being **lightweight, flexible, and durable**, it is ideal for use in advertising, construction and industrial applications. The range of PVC sheets includes foam sheets, integral skin-foam Celuka or compact sheets.

Novacel has designed a broad range of process and protective films dedicated to the diversity of the PVC sheets: **low-static films** for digital printing, **easy-peel films** for compact sheets, and **coex solutions** for the trim boards popular in housing to replace wood elements.



NOVACEL ASSETS

- **Adhesion adjusted** for each PVC surface finish
- **Withstands fabrication constraints** such as cutting, routing, drilling, sawing
- **Ideal for screen or digital printing** on PVC sheets
- **Easy to peel off** with **no residue** at film removal

NOVACEL'S CHOICE: 9115 - The coex film for digital printing on PVC sheets

- **Easy to apply** on free-foamed PVC sheets with no elongation on extrusion line
- **Low-static coex film** compatible with high-quality digital printing
- **Versatile adhesion** for optimal preservation of foam PVC sheets
- **Easy film removal** before sheet printing
- Available in tinted versions like green, yellow, white.

Process and Protective films					PVC sheets		
Grade	**Technology**	**Thickness**	**Thermoforming**	**Features and properties**	**Surface finish**	**Free foamed**	**Compact solid**
9048 (white)	Uncoated **coex films**	70 µm / 2.8 mils	✓	Soft peel, medium adhesion, suitable for door panels	Glossy to semi-mat	-	✓
9046		50 µm / 2 mils	✓	Medium adhesion, suitable for door panels	Semi-gloss to mat	-	✓
9115		30 µm / 1.2 mils	-	Medium-high adhesion, static-free, easy to apply and peel off	Smooth, textured or mat	✓	-
9112 (green)		33 µm / 1.3 mils	-			✓	-
9042		33 µm / 1.3 mils	-	High adhesion and easy to peel off	Mat or textured	✓	-
4368	Water-base adhesive **coated films**	35 µm / 1.4 mils	-	Medium adhesion	Glossy to semi-mat	-	✓
4328		50 µm / 2 mils	-			-	✓
4374		40 µm / 1.6 mils	-	High adhesion	Mat	-	✓
4143		60 µm / 2.4 mils	-	High adhesion, easy to apply and low-noise technology	Mat or textured	-	✓

NOVACEL LAMINATORS

Novacel's offering is fully comprehensive and can meet your machinery needs. With its **Omma and Walco brands**, Novacel Special Machines can **develop, manufacture, and install special machines for the process and protective film lamination in the plastic industry.**

With 60, and counting, years of deep experience, our brands offer unparalleled innovation and reliability. We will co-develop with you the machine you are looking for, **meeting all your technical specifications,** to **increase your efficiency** in all your processes.

For more informations, go to our website: www.walcomachine.com

FIND YOUR MATCH

A formal approval process by Novacel experts is imperative before using our products. Our technical data sheets are available on request. As the applications of NOVACEL films are very wide-ranging and the conditions of use may vary from one company to another, NOVACEL recommends that you systematically carry out qualification tests on an industrial line before using the product and that you inform Novacel of the results.

FILMS FOR POLYCARBONATE, PMMA & POLYESTER - THERMOPLASTIC FILMS

Process and Protective films					Thermoplastic films < 2 mm			
Grade	**Technology**	**Thickness**	**Thermoforming**	**Properties**	**Plastic finish**	**PC**	**PMMA**	**PET**
9246	Uncoated **coex films**	38 µm / 1.5 mils	✓	Easy peel	Glossy	✓	✓	✓
9078		40 µm / 1.6 mils	✓	Heat resistant & easy peel	Glossy	✓	✓	✓
9003		40 µm / 1.6 mils	✓	Soft peel	Glossy	✓	-	-
9839		40 µm / 1.6 mils	✓	Smooth peel	Glossy	✓	✓	✓
9026		50 µm / 2 mils	✓	Zipping & easy peel	Glossy	✓	✓	✓
4784	Acrylic water base adhesive **coated films**	50 µm / 2 mils	-	Retack feature, low adhesion	Glossy	✓	✓	✓
4768		30 µm / 1.2 mils	-	Retack feature, low adhesion	Glossy, non-glare	✓	✓	✓
4381		35 µm / 1.4 mils	-	Retack feature, medium adhesion	Fine velvet - fine mat	✓	✓	-
4374		40 µm / 1.6 mils	-	Retack feature, high adhesion	Mat or textured	✓	✓	-

FILMS FOR POLYCARBONATE, PMMA & POLYESTER - THERMOPLASTIC SHEETS

Process and Protective films					Thermoplastic sheets > 2 mm			
Grade	**Technology**	**Thickness**	**Thermoforming**	**Properties**	**Plastic finish**	**PC**	**PMMA**	**PET**
9839	Uncoated **coex films**	40 µm / 1.6 mils	✓	Smooth-peel	Glossy	-	✓	-
9026		50 µm / 2 mils	✓	Zipping & easy-peel	Glossy	✓	✓	✓
9872		50 µm / 2 mils	✓	Heat resistant, zipping & easy-peel	Glossy	✓	✓	-
9020		60 µm / 2.4 mils	✓	Zipping & easy-peel	Glossy	-	✓	-
9816		65 µm / 2.6 mils	✓	Smooth-peel	Glossy	✓	-	-
9813		65 µm / 2.6 mils	✓	White paper replacement scratch-resistant & zipping easy-peel	Glossy	✓	-	-
9002		30 µm / 1.2 mils	✓	Easy-peel	Multiwall sheets	✓	✓	-
4768	Acrylic water base adhesive **coated films**	30 µm / 1.2 mils	-	Low adhesion	Glossy / Multiwall sheets	✓	✓	✓
4368		35 µm / 1.4 mils	-	Medium adhesion	Coated sheets, non glare	✓	✓	✓
4614		50 µm / 2 mils	-	White film, medium adhesion	Glossy	-	✓	-
9310		60 µm / 2.4 mils	-	Brown paper replacement, scratch-resistant, medium adhesion	Glossy	✓	✓	-
4631		65 µm / 2.6 mils	-	White film medium adhesion	Glossy	-	✓	-
9106		60 µm / 2.4 mils	-	White film, high adhesion	Mat & textured	-	✓	-
9878		100 µm / 4 mils	-	White scratch resistant film, very high adhesion	Abrasion-resistant coated sheets	✓	✓	-
4748	Rubber latex adhesive **coated papers**	127 µm / 5.1 mils	-	Brown Kraft polycoated paper	Glossy	✓	✓	-
4712		102 µm / 4.3 mils	-	Brown Kraft paper	Glossy	✓	✓	-

FILMS FOR DECORATIVE PANELS

Process and Protective films				Decorative films & sheets		
Grade	**Technology**	**Thickness**	**Features and properties**	**Surface finish**	**1D & 2D**	**3D**
4346	Acrylic-water base **coated films**	40 µm / 1.6 mils	Low-adhesion, high-quality clear film	High gloss	✓	✓
4609		50 µm / 2 mils	Blue film, medium-adhesion	Glossy	✓	✓
4540		50 µm / 2 mils	Medium-adhesion	Glossy	✓	✓
4365		50 µm / 2 mils	Medium-high adhesion	Mat & smooth	✓	-
9120		60 µm / 2.4 mils	Blue film, high-adhesion, stiff film for 3D forming	Mat coated AFP or textured	✓	✓
3050		**60 µm / 2.4 mils**	**Oxygen vegetal grade, high adhesion, blue stiff film for 3D forming**	**Mat coated AFP or textured**	✓	✓
9556		60 µm / 2.4 mils	High-adhesion, stiff film for 3D forming	Mat coated AFP or textured	✓	✓
4118	Rubber-base **coated films**	50 µm / 2 mils	Blue film, high-adhesion	Mat coated AFP or textured	✓	✓
4160		60 µm / 2.4 mils	High-adhesion	Mat coated AFP or textured	✓	✓

FILMS FOR PVC SHEETS

Process and Protective films					PVC sheets		
Grade	**Technology**	**Thickness**	**Thermoforming**	**Features and properties**	**Surface finish**	**Free foamed**	**Compact solid**
9048 (white)	Uncoated **coex films**	70 µm / 2.8 mils	✓	Soft peel, medium adhesion, suitable for door panels	Glossy to semi-mat	-	✓
9046		50 µm / 2 mils	✓	Medium adhesion, suitable for door panels	Semi-gloss to mat	-	✓
9115		30 µm / 1.2 mils	-	Medium-high adhesion, static-free, easy to apply and peel off	Smooth, textured or mat	✓	-
9112 (green)		33 µm / 1.3 mils	-			✓	-
9042		33 µm / 1.3 mils	-	High adhesion and easy to peel off	Mat or textured	✓	-
4368	Water-base adhesive **coated films**	35 µm / 1.4 mils	-	Medium adhesion	Glossy to semi-mat	-	✓
4328		50 µm / 2 mils	-			-	✓
4374		40 µm / 1.6 mils	-	High adhesion	Mat	-	✓
4143		60 µm / 2.4 mils	-	High adhesion, easy to apply and low-noise technology	Mat or textured	-	✓

FILMS FOR GRP/FRP COMPOSITE PANELS

Process and Protective films				GRP/FRP Composite panels
Grade	**Technology**	**Thickness**	**Features and properties**	**Surface finish**
9026	Uncoated **coex films**	50 µm / 2 mils	Low adhesion, easy-peel	High gloss
9872		50 µm / 2 mils	Low-medium adhesion, easy-peel	
9046		50 µm / 2 mils	Medium adhesion, easy-peel	
9056		50 µm / 2 mils	High clear film, medium adhesion, easy-peel	
9057		70 µm / 2.8 mils	Medium adhesion, easy-peel	
4768	Acrylic water base **coated films**	30 µm / 1.2 mils	Low adhesion	High gloss
4407		55 µm / 2.1 mils	Low adhesion	
8100		64 µm / 2.5 mils	Low adhesion	High gloss
4328		50 µm / 2 mils	Medium adhesion	Mat

For more grades or information, please refer to your sales representative.

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