

# — PLASTIC SHEETS

PROCESS & PROTECTIVE FILMS  
AND LAMINATORS





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## 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'S COMMITMENT TO PEOPLE AND THE PLANET

Novacel's CSR Strategy is organized around three pillars:

— **Creating a responsible industrial community**

— **Minimizing our environmental impact**

— **Eco-designing our products**

As a responsible manufacturer, Novacel takes responsibility for the impacts of its decisions and activities on society and the environment. Given this, Novacel promotes operational excellence and staff engagement through regular team upskilling and training. Moreover, through our responsible purchasing charter, we strive to adhere to ethical business practices with our partners and our employees' approach to their work is governed at all times by the Chargeurs Group's Code of Conduct.

Reducing the environmental impact of our products by innovating right from their initial conception up to their end-of-life and taking care of teams' and customers' health are at the heart of Novacel CSR Strategy.

Tackling the ecological impact of our products on the planet is a daily challenge.

**Oxygen**, Novacel's unique range of responsible products, promises to:

- **Reduce fossil raw materials** use to save non-renewable resources
- **Use a maximum of recycled resources** to limit the production of new fossil-based films
- **Minimize CO<sub>2</sub> emissions**
- **Be recyclable**



— **FOSSIL RESOURCES**



— **CO<sub>2</sub> EMISSION**



+ **RECYCLING**

Increasing human wellbeing at work is a daily preoccupation at Novacel both internally and externally. Novacel is constantly developing technologies with this in mind in order to decrease repetitive strain injury (RSI) and increase the quality of the work environment:



**EASY PEEL**



**EASY UNWINDING**



**LOW NOISE**

**Ask now for a free sample roll for formal approval on your fabrication line!**

# 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.

## WHY USE NOVACEL SOLUTIONS?

### > A Global Solution Provider

Novacel offers complete solutions with processing films, technical tapes, paper products, machines and associated services.

### > Unique features for your specific needs

We create innovative solutions to improve your industrial efficiency and ensure the well being of people; such as films dedicated to new surfaces or processes, low noise, easy peel and easy unwind.

### > Expertise & Technical Support

Our teams are dedicated to providing you with the best experience and assisting you from the initial search for the right solution right up to its final implementation.

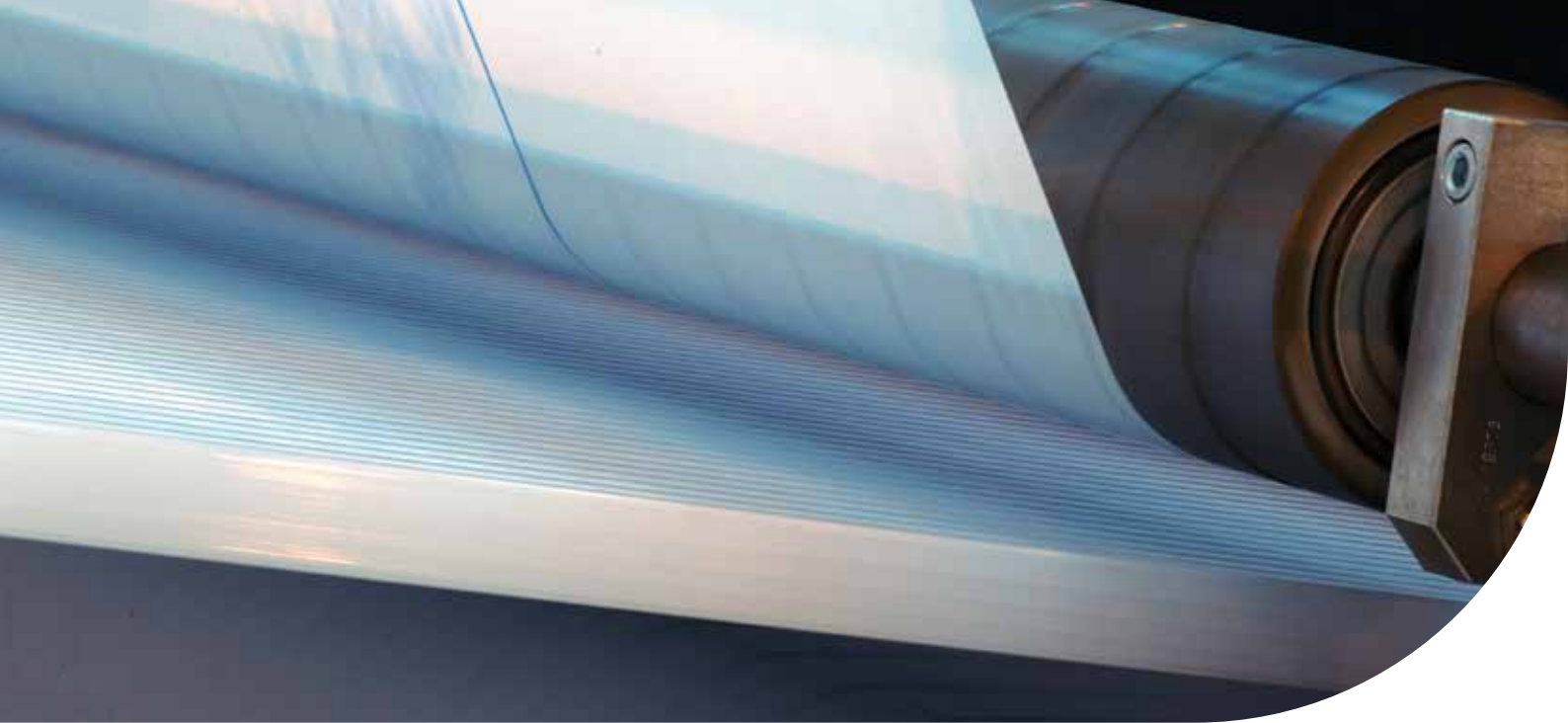
### > A Strong CSR Commitment

Novacel works continuously on its carbon footprint by improving its production, creating eco-responsible solutions and putting human well-being at the heart of its strategy.









## — 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?

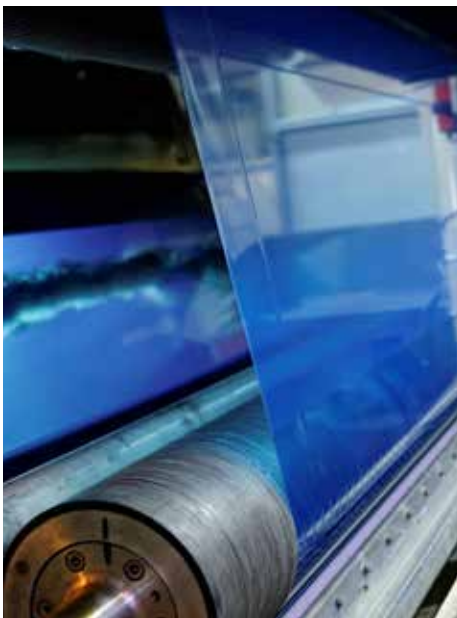
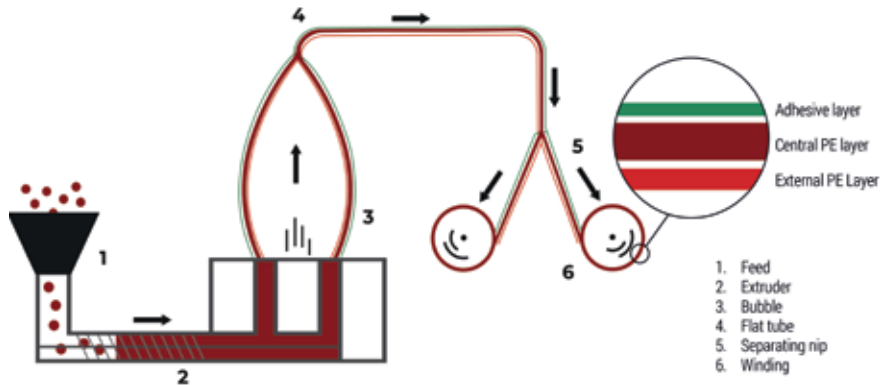
For a new product design or product adjustment, after formulation work, and before moving on to industrial production, tests are conducted in the **Novacel technical center** using scale trials on extrusion and coating pilot lines. This allows properties to be adjusted and the process ability of new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





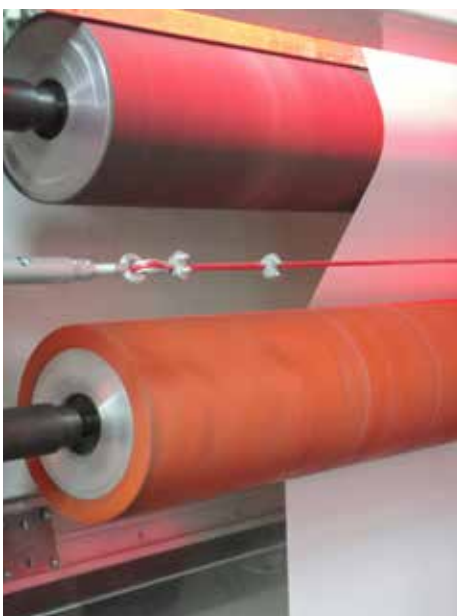
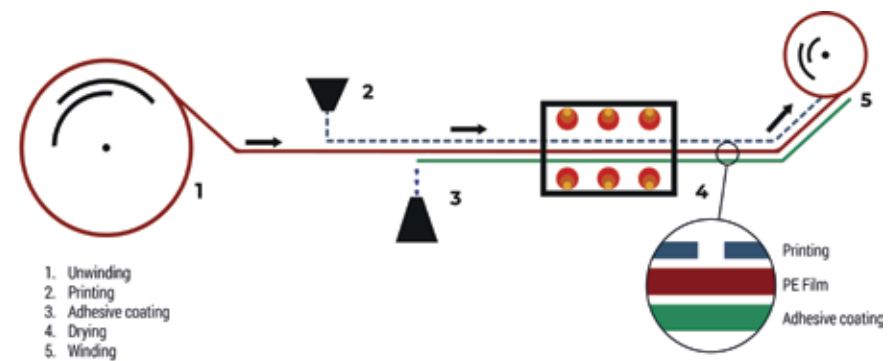
### COEXTRUDED FILM TECHNOLOGY (COEX)

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.



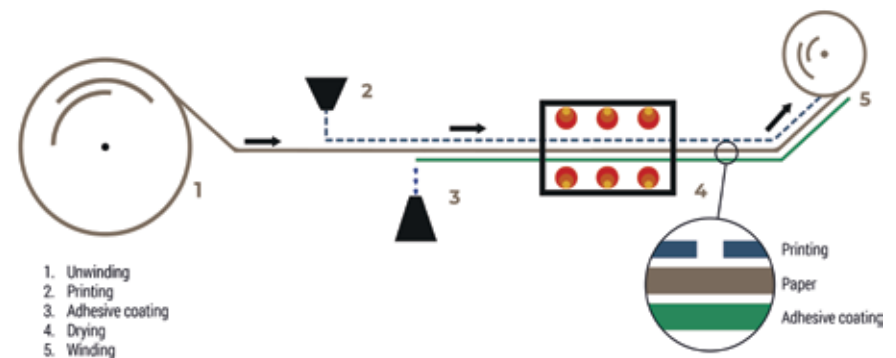
### COATED FILM TECHNOLOGY

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 <b>coex films</b>	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 <b>coated films</b>	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

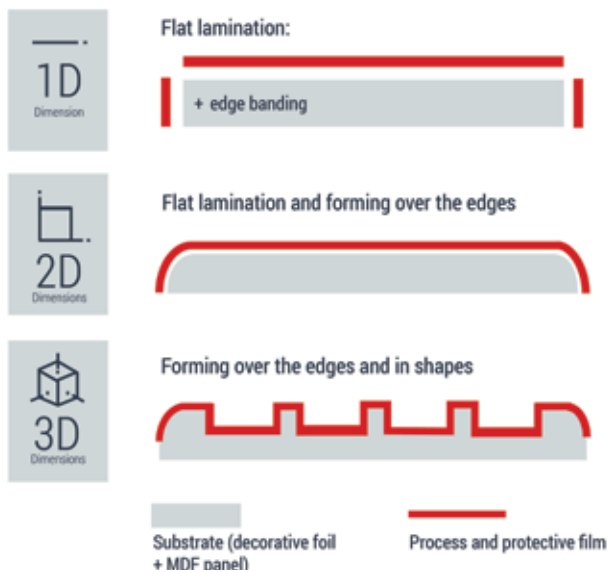






## — FILMS FOR DECORATIVE PANELS

### Lamination process for furniture elements



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 <b>coated films</b>	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	✓	✓
<b>3050</b>		<b>60 µm / 2.4 mils</b>	<b>Oxygen vegetal grade, high adhesion, blue stiff film for 3D forming</b>	<b>Mat coated AFP or textured</b>	✓	✓
9556		60 µm / 2.4 mils	High-adhesion, stiff film for 3D forming	Mat coated AFP or textured	✓	✓
4118	Rubber-base <b>coated films</b>	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 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	-	✓
4378		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

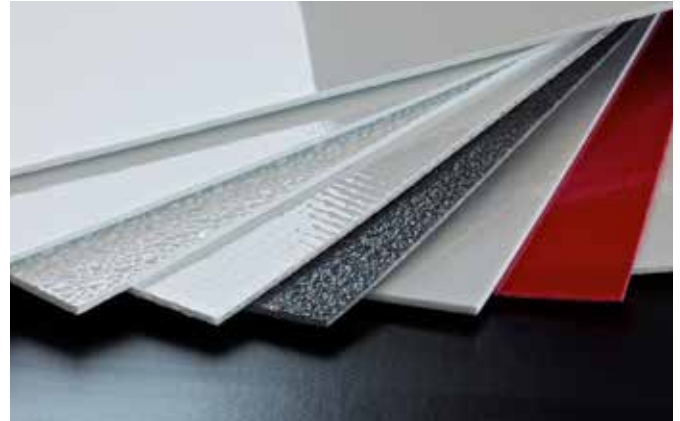
FRP (Fiberglass Reinforced Plastics) or GRP (Glass Reinforced Plastics) are composite materials. They are used in the Recreational Vehicle (RV) and Caravan industry for exterior sidewall, roof and even interior panels. They are also popular in new areas such as hygiene and medical applications. Available in surface finishes ranging from high gloss to smooth or

mat, 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

# — BENEFIT FROM NOVACEL SERVICES TO EASE YOUR BUSINESS

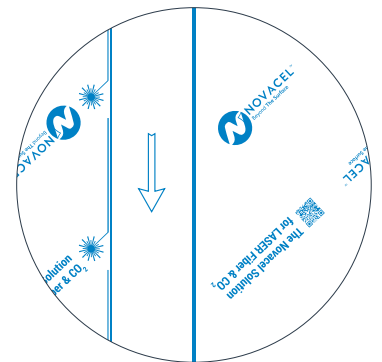


## PRODUCT RECOMMENDATION

Benefit from Novacel expertise: choose the best solution for your materials and surfaces, make your processes even more efficient and your carbon impact even lower. A whole team is dedicated to product recommendations to make sure your expectations are satisfied more effectively, and this applies in all four corners of the world.

## YOUR COMMUNICATION

Enhance the visibility of your brand with printed films. The printing is done in our factories in a range of colors in accordance with your requests: logo and brand names, technical guidance, slogans and generally any statements.



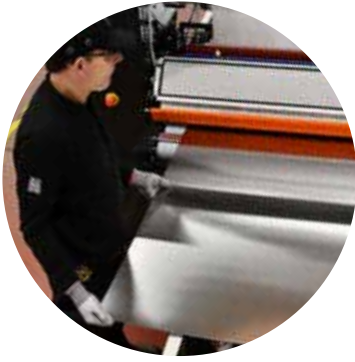
## PRODUCT CUSTOMIZATION

Thanks to our numerous service centers worldwide, we can deliver our solutions anywhere on the planet. Thanks to our network of service centers, we can deliver products ready for widening as close as possible to our customers. Cutting and rewinding machines allow us to convert our rolls to any required width. Dedicated experts are available at all our locations to support you.

## PACKAGING CUSTOMIZATION

Novacel is keen to ensure that you receive our products in the condition in which they left our site. With this objective in mind, we pay close attention to the packaging of our products. Adapting them to perfectly match the required conditions, we handle every stage in delivery: road, maritime, air transportation or special storage, using the right packaging to meet all safety standards. If you have a specific request, contact us and we will look into it with you.





## TECHNICAL SUPPORT

In order to help you enhance the quality of your products, a dedicated team at Novacel will do everything in their power to assist you. Our team of experts is available at all times to respond to your queries and requests and help you define the best solution right up to final implementation, including determination of the adjustment settings for your application machinery.

## RECYCLING SUPPORT

As a fully committed company, we work not only on the product, but also on its life cycle as a whole, including end-of-life. Novacel's foils are designed to be recyclable. Our current objective is to help our customers recycle their film remnants. We propose solutions in several countries - go to our website [www.novacel-solutions.com/services](http://www.novacel-solutions.com/services) to find the right contact for you.



## CUSTOMER PORTAL

Need to get information outside of working hours? Go online to our new customer portal [www.my.novacel.world](http://www.my.novacel.world) and review online all your account activities with just a few clicks\*: detailed Novacel order history, order status, product info, requests, bills.

\*for direct customers only

**For more information or any request, please contact us:  
[contact@novacel-solutions.com](mailto:contact@novacel-solutions.com)**

## 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](http://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 <b>coex</b> 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 <b>coated</b> 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 <b>coex</b> 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 <b>coated</b> 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 <b>coated</b> 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 <b>coated films</b>	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	✓	✓
<b>3050</b>		<b>60 µm / 2.4 mils</b>	<b>Oxygen vegetal grade, high adhesion, blue stiff film for 3D forming</b>	<b>Mat coated AFP or textured</b>	✓	✓
9556		60 µm / 2.4 mils	High-adhesion, stiff film for 3D forming	Mat coated AFP or textured	✓	✓
4118	Rubber-base <b>coated films</b>	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 <b>coex films</b>	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 <b>coated films</b>	35 µm / 1.4 mils	-	Medium adhesion	Glossy to semi-mat	-	✓
4378		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 <b>coex films</b>	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 <b>coated films</b>	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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