

# EXTERIOR GUIDELINES

## INTRODUCTION

A high functional film with 11 different designs, tailored made for long outdoor use, created with a remarkable durability up 20 years.

«Revolutionizing building aesthetics, our Exterior Film facilitates swift, seamless, and hassle-free redecoration for a diverse array of residential and commercial projects. With superior adhesion on challenging building substrates like plastics, aluminum, uncoated/coated steel, and reinforced facade panels, it stands as a compelling alternative to conventional paint solutions or new applications.»

**Exterior Guidelines.**



COALA INTERIOR FILM  
EXTERIOR GUIDELINES

# SUMMARY.

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## GENERAL SPECIFICATION

### PRODUCT SPECIFICATIONS

STANDARD SERIES	PVC + PMMA
PREMIUM SERIES (PVC-FREE)	PMMA
ADVANCED SERIES (PVC-FREE)	PMMA + PVDF
ADHESIVE	Acrylic PSA adhesive
FILM THICKNESS	200 – 250 microns
SHELF LIFE	1 - 2 years (from shipping date)
STRETCHABILITY	No*
CHEMICAL RESISTANCE	Yes**
REMOVABILITY	Permanent installation***

For further information refer to the Product Data Sheet.

\*Simple stretch possible but not under our guarantee

\*\*7 references (Advanced Series) present an exceptional resistance to chemical

\*\*\*Removal may be difficult or not possible

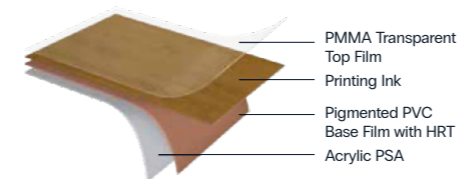
### GENERAL PRODUCT PERFORMANCE

CE MARK	NR
FIRE EN13501-1	D-s1,d0
RAL-GZ 716	Compliant

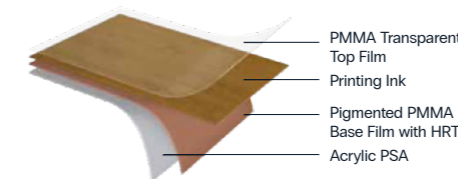
For further information refer to the Product Data Sheet.

### GENERAL PRODUCT CONSTRUCTION

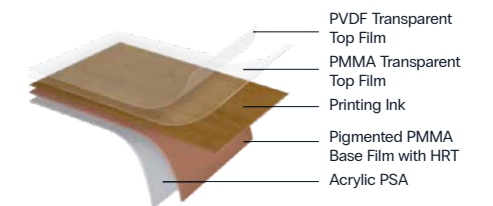
**STANDARD**  
EXT-Z18, EXT-Z19, EXT-Z20



**PREMIUM**  
EXT-Z17



**ADVANCED**  
EXT-Z10, EXT-Z11, EXT-Z12, EXT-Z13,  
EXT-Z14, EXT-Z15, EXT-Z16



# 5 REASONS WHY COALA INTERIOR FILM EXTERIOR FILM



## 1. EXTEND YOUR RANGE

Provide an external solution.

## 2. MINIMIZING WASTE

Implementing measures to prevent waste generation during facade, windows and/or door renovations.

## 3. ENHANCED LIFESPAN

Utilizing techniques that extend the overall lifespan of facade panels, window and door frames promoting sustainability and durability.

## 4. LOWER LIFE CYCLE COSTS

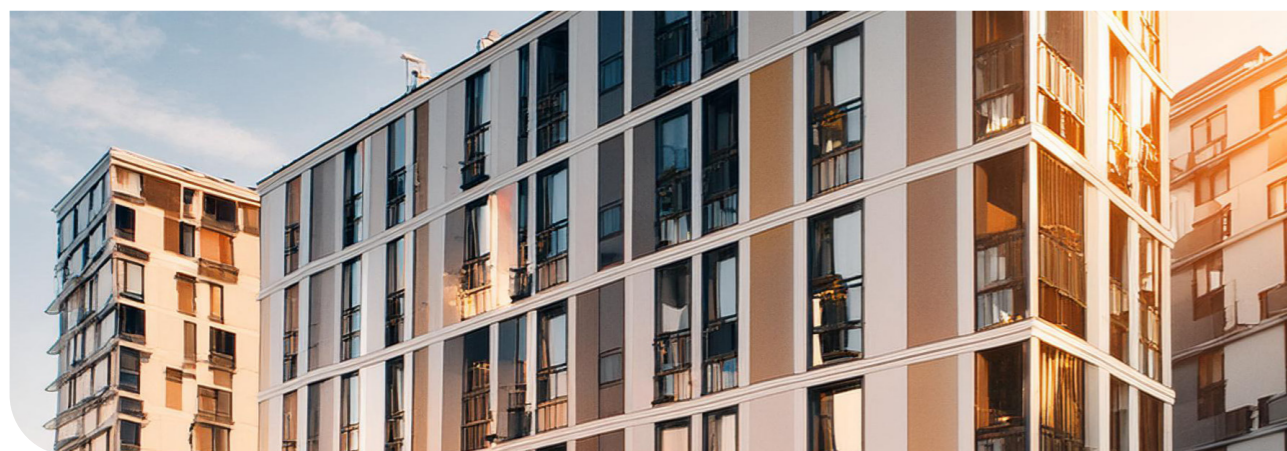
Adopting practices that lead to reduced overall costs throughout the facade's life cycle, enhancing economic efficiency\*.

## 5. ENERGY EFFICIENCY

The Heat Reflection Technology enhances energy efficiency\*\*.

\***IMPORTANT:** Use solutions that keep buildings clean longer, so they need less frequent cleaning.

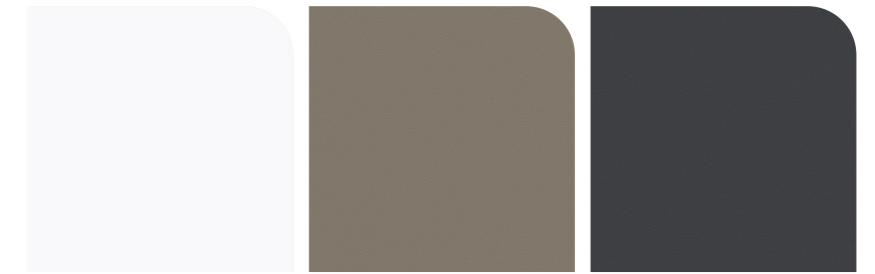
\*\*Contact us for further information.



# EXTERIOR FILM CATEGORIES

CHEMICAL RESISTANCE PVC-FREE

## ADVANCED



EXT - Z11 Seren white

EXT - Z13 Mat grey mink

EXT - Z12 Ultimatt anthracite grey



EXT - Z10 Ultimatt ash black

EXT - Z15 Golden oak

EXT - Z16 Dark oak

EXT - Z14 Silk wood dark

## PREMIUM



EXT - Z17 Sheffield concrete oak

## STANDARD



EXT - Z18 Nody maple

EXT - Z19 Alux

EXT - Z20 Charcoal metal

# SURFACE COMPATIBILITY

Following all the step for installation of Exterior Film is crucial to ensure optimal performance and longevity. This guide provides insights into surface compatibility and considerations for facade and/or window frames preparation, facilitating the installation process.

## STRUCTURAL CONSIDERATIONS

Exterior film is engineered specifically for the below:

- Building facades
- Claddings
- Panels
- Window frames

And smooth substrates with high-energy surfaces such as:

- ACP panel
- Anodized or powder-coated aluminium
- Steel
- HPL
- PVC/U-PVC

Although the film is suitable for a variety of substrates, it is not recommended for low-energy surfaces such as:

- Untreated Wood
- Mineral board / panel
- Cement / concrete / mortar
- Real stone
- Poorly adhered paint

Surfaces, whether existing, new, or renovated, are often affected by various contaminants such as dust, silicon, grease, paint stains, glue residues, and welding spots. Contaminants can compromise the bonding of the film, necessitating thorough cleaning and assessment before application.

Prior to application, it is essential to conduct an adhesion test to ensure compatibility with the substrate. Apply a small piece of film to the surface to evaluate adhesion and determine the necessary preparations for proper bonding. For building facades or large areas, conduct adhesion tests on various parts to check different zones and ensure there are no areas with poor adhesion. Address any issues identified during testing, such as weak paint adhesion or surface contamination, before proceeding with film application.



# INSTALLATION GUIDELINES

## 1. PRE-INSTALLATION CHECK

To determine if Exterior Film can be applied effectively and ensure optimal performance, complete the following pre-installation check:

### WHAT SURFACE?

Identify the type of surface present, and perform an adhesion test to verify compatibility, as inadequate adhesion may require pre-treatment or different installation methods, leading to ≠ guarantee.

### WHAT FINISH?

Assess the condition of paintwork and other finishes on the building's facade, noting any areas where paint is blistered or chalked, as well as signs of corrosion.

### WHAT STATE?

Evaluate the overall condition of the building, including any existing damage or leakage issues that may need to be addressed before film installation.

### PRE-TREATMENTS

Determine if any pre-treatments are necessary to ensure a smooth application of the film, such as repairs to damaged surfaces, removal of old stickers, or smoothing the surface to eliminate irregularities.

### SURFACE CONTAMINATION

Evaluate the degree of surface contamination, including the presence of silicon remnants or other residues that may interfere with adhesion.

### ACCESSIBILITY, FACILITIES AND TEMPERATURE

Consider the accessibility of the building and the availability of storage facilities and power outlets for equipment and tools required during installation. Do not underestimate the installation temperature, that must be between 15° and 35°.



**For plated metals and painted surfaces, it is important to install the film and allow it to fully adhere to the substrate within the recommended temperature range. This minimizes and avoids the risk of peeling due to substrate expansion/contraction caused by environmental factors such as heat or moisture.**

## STRUCTURAL CONSIDERATIONS

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Check for any structural issues that could arise or bring issue prior or after the installation of Exterior film.

## COATED OR CHALKED SUBSTRATE

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To determine if Exterior Film can be applied directly onto coated or chalked substrates, conduct the following tests:

### «Strip Method» test

- Apply a test strip of film onto the substrate and remove it after a 20 minutes.
- Inspect the adhesive side of the removed film for residue.
- If the adhesive side is clean, the substrate is suitable for application.
- If the adhesive side is not clean, the substrate is probably not yet suitable for application.

### «Cross-Hatch» test

- Cut an oblique cross into the painted surface.
- Apply tape cross-hatch testing tape onto the cut section and pull it away swiftly.
- Assess the amount of paint removed by the tape to determine the bond to the substrate.
- Refer to standard test methods for cross-hatch testing for detailed guidelines.

## DOCUMENTATION

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Record any damage or problems found during the evaluation in a report for warranty approval to be delivered to Antalis and to protect against liability after completion of the work.

By thoroughly assessing these factors, you can create a comprehensive budget that accurately reflects the time and materials required for Exterior Film installation, ensuring a successful and cost-effective project outcome.

# INSTALLATION GUIDELINES

## 2. PREPARATION & CLEANING

The surface preparation is key process and include:

### STEP 1.

#### REMOVE LOOSE DIRT AND DEBRIS

Using a dustpan and brush, carefully remove any loose dirt, dust, and spider webs from the surface. Thoroughly clean all accessible areas to ensure a clean substrate for film application.

### STEP 2.

#### TREAT ORGANIC CONTAMINATION

For organic contamination such as moss or mildew, prepare a solution of water and soda (or vinegar). Spray the affected areas generously and allow the solution to soak for a minimum of 24 hours to effectively loosen and dissolve the contaminants.

### STEP 3.

#### WASH THE SURFACE

Wash the entire surface and fittings with a mixture of water and soap. Ensure thorough coverage and scrubbing to remove any remaining dirt or residue. Ensure the surface is completely dry to prevent moisture from interfering with film adhesion.

### STEP 4.

#### REMOVE STUBBORN STAINS AND RESIDUES

Using a wet glass knife or [scraper](#), carefully remove any paint stains, glue residues, or welding spots from the surface. Take caution to avoid scratching surfaces during this process. Perform this action while the surface is wet to facilitate easier removal of stubborn residues.

### STEP 5.

#### DEGREASE THE SURFACE

Using [Sott Surface Cleaner](#) or [T800](#), degrease the entire surface, paying particular attention to the edges where contaminants may accumulate. Use moisture-absorbing tissues or cloth generously to ensure thorough cleaning. Check for any silicon residue and address it accordingly to promote optimal film adhesion.

By following these steps, you can ensure a clean, properly treated substrate ready for the application of Exterior Film.

After cleaning and preparing the surface, it's crucial to verify whether the necessary bonding can be achieved before proceeding application. Adhesion test before installation can be carried out by:

## ADHESION TEST

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### Dyne pens for surface tension

Use a Dyne pen to measure the surface tension of the substrate (40 Dyne recommended).

### Surface adhesion test kit (peel test)

Using a surface adhesion test kit, an initial adhesion of at least 1000 grams is recommended as a result.

## PRIMERS

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The use of a primer on the surface is mandatory to ensure proper adhesion of the film. Conduct an adhesion test to determine the most suitable primer for application. The primer should be applied to the perimeter of the surface. Where possible, avoid overlaps between sheets by using head-to-head cuts.

For overlaps, **Primer+** is especially recommended for the Advanced range due to the presence of a protective PVDF coating.

## SILICONE CONTAMINATION

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Silicone contamination is common on surfaces that have undergone careless restoration or renewal. It can also result from the «sweating out» of silicone particles from newly installed window rubbers or sealants. Remove silicone contamination using **Sott T900** or specific products together with a wet glass knife or **scraper**, rinse and finish with **Sott Surface Cleaner**.

Depending on the type of result obtained, cleaning or pretreatment methods should be adjusted accordingly.

# INSTALLATION GUIDELINES

## 3. SURFACE REPARATION

In some cases, surface preparation may involve repairing damaged substrates using fillers, primers, and smoothing techniques. Use a two-component filler for damaged surfaces, followed by sanding with fine-grain sandpaper to achieve a smooth finish suitable. As a final step, apply **Primer+/PRO** to the repaired area.

## TREATMENT OF FILIFORM CORROSION

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Filiform corrosion must be thoroughly treated to prevent recurrence. Follow these steps:

- Remove corrosion through sanding or scraping.
- Deep clean with **Sott Surface Cleaner**.
- Fill the affected area with **polyester filler**.
- Seal with epoxy primer to inhibit further corrosion.

## ALUMINIUM SURFACE CONSIDERATIONS

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Avoid sanding down Aluminium to bare metal to prevent oxidation. If bare aluminium is exposed, treat the surface with a two-component epoxy primer to prevent oxidation.

By diligently following these steps and considerations, you can ensure that the substrate is properly prepared for the successful application of Facade Film, maximizing adhesion and longevity.



# INSTALLATION GUIDELINES

## 4. GENERAL TIPS & TRICKS

In outdoor situations, several steps are necessary to ensure a smooth and safe installation process:

### CLOSE OFF WORK AREA



Close off the work area to the public to ensure safety and minimize disruptions during installation considering required elevation measure.

### PREPARE FOUNDATION FOR EQUIPMENT



If elevation equipment is required, ensure that the foundation is suitable for the placement of elevation equipment, such as ensuring stability and level ground.

### OBTAIN NECESSARY PERMITS



Apply for any required exemptions or permits for outdoor work to comply with local regulations and ensure a smooth installation process.

### WIND AND PRECIPITATION



Consider wind direction and sunlight movement when planning the work sequence and wrapping facade sections. In adverse weather conditions, such as wind or rain, consider using canvas covers or windscreens to create a sheltered work environment.

### TEMPERATURE FLUCTUATIONS



Be mindful of temperature fluctuations, especially when working on the same graphic at different times. Extreme temperature variations can affect film alignment, requiring adjustments during installation.

- **At higher temperatures:** Initial bonding increases, and application may become more difficult due to film softening. Expansion of large film sections may pose challenges during application.
- **At lower temperatures:** Initial bonding decreases, but application may become easier due to increased rigidity of the film.

# INSTALLATION GUIDELINES

## 5. SAFETY

Adhering to safety guidelines and ensuring proper training for the operation of elevation equipment is paramount to the success and safety of Facade installation projects. Here's why:

### PREVENTING ACCIDENTS

Following safety guidelines reduces the risk of accidents and injuries to workers and bystanders during the installation process.

### ENSURING COMPLIANCE

Proper safety training ensures that workers are aware of and comply with safety regulations and standards set by relevant authorities.

### MITIGATING RISKS

Understanding how to safely operate elevation equipment minimizes the risk of damage to property and equipment, as well as the risk of project delays due to accidents or injuries.

### PROTECTING WORKERS

Training in safety procedures and the correct use of equipment protects workers from potential hazards associated with working at heights.

### ENHANCING EFFICIENCY

When workers are trained and confident in operating elevation equipment safely, they can focus on completing the installation efficiently and effectively.

### BUILDING TRUST

Clients and stakeholders trust contractors who prioritize safety, leading to positive relationships and potential future collaborations.

In summary, investing in safety training and adhering to safety guidelines is crucial for the successful and safe operation of elevation equipment during Facade Film installation projects. It protects workers, ensures compliance with regulations, and contributes to project efficiency and client satisfaction.

# INSTALLATION GUIDELINES

## 6. EQUIPMENT

For this type of installation, the size of the substrates and, if necessary, the elevation equipment being used is essential choosing the appropriate format for Exterior film for ensuring efficiency and ease of installation. Here are some recommendations based on equipment:

### SCAFFOLDING



Horizontal or pre-cut installation are most suitable for use when working from scaffolding. While vertical installation can also be applied, it may be more challenging in practice due to the setup of scaffolding.

### AERIAL PLATFORM



- For aerial platform usage, both vertical and horizontal lengths can be used effectively.
- Opting for pre-cuts with the same breadth as the aerial platform's cradle can enhance efficiency.
- Using vertical lengths offers advantages such as easier handling of the film roll, less tiring use of the squeegee, and convenient disposal of released backing paper into the platform's cradle.

### WINDOW WASHING SYSTEM

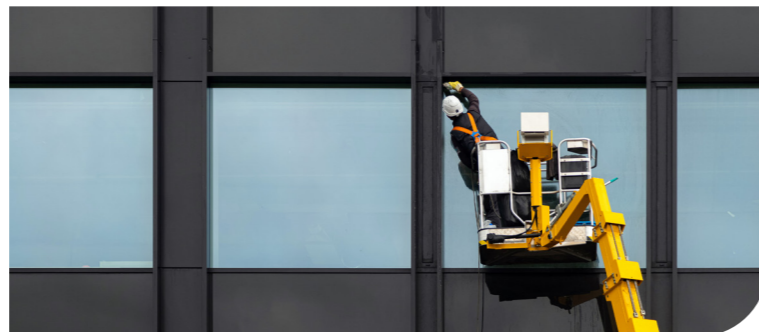


- When working from a window-washing system cradle, it's advisable to use vertical lengths of film. This aligns with the system's primary function for vertical movement.
- Utilize the maximum width of film that can be comfortably processed when working as a team.

### ADDITIONAL TIPS



By aligning the Exterior Film format, installers can optimize efficiency and workflow during the installation process. This ensures smoother operations and better overall results.



# INSTALLATION GUIDELINES

## 7. CUTTING & FINISHING

Cutting Exterior Film requires precision and caution to avoid irreparable damage to the underlying surfaces, such as glass, aluminium, and plastics. Here are some important considerations to keep in mind:

### RIGHT CARE-CUT

Cutting through the film can result in irreparable scratches on the surface layer, leading to potential issues like corrosion on anodized aluminium surfaces.

### RIGHT CUT PRE-CUT

Be particularly cautious when cutting near finished edges, such as those sealed with sealant or rubber, to avoid the risk of leakage. Pre-cut the film when possible, or cut next to the rubber or sealant, rather than on it.

### RIGHT TOOL

Preferably use 30° stainless steel break-off blades for cutting (Sott 120-SAB-10), as they are less likely to damage the surface compared to regular steel blades.

### RIGHT FINISH

- Apply film along edges and corners without inducing stress. After application, re-squeegee all edges and corners to ensure proper adhesion and prevent lifting or curling of the film.
- **Replacing windows, panels, and frames can be a costly endeavor, underscoring the importance of careful cutting and handling.**

### RIGHT SEALANT

To prevent film lifting or curling, consider applying a protective layer of edge sealer (Sott 600-3950) or an additional strip of film along the edges and corners (Sott 400-011/400-011C).

By adhering to these guidelines and exercising caution during cutting and finishing, you can minimize the risk of damage to surfaces and ensure a professional and long-lasting installation of Exterior Film.

# INSTALLATION GUIDELINES

## 8. RECOMMENDED TOOLS

### LIQUIDS & PRIMERS



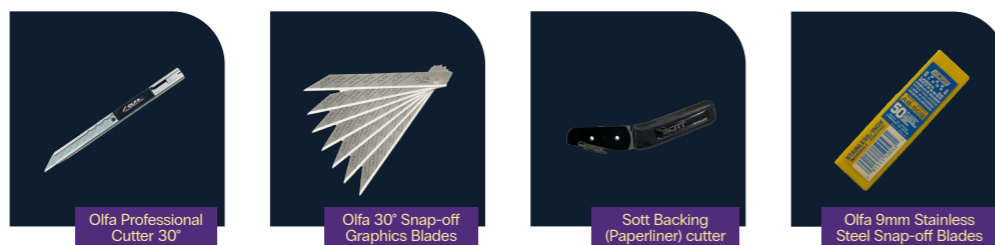
### SCRAPER & CLEANING



### SQUEEGEE



### CUTTERS



### FINISHING



# CARE & MAINTENANCE

Maintaining Exterior Film is crucial for preserving its appearance and extending its lifespan. Here's a recommended maintenance routine:

### DETERMINE CLEANING FREQUENCY



The frequency of cleaning must not exceed 1 year, considering factors such as location, local pollution levels, and exposure to natural elements like birds and trees.

### PREFERRED CLEANING METHOD

Hand cleaning is the best approach for maintaining Exterior Film.

### HAND CLEANING PROCEDURE



#### 1. PRE-RINSE

Begin by rinsing the film with clean water using a hose. This helps remove loose dirt particles and minimizes the risk of scratching the film during washing.

#### 2. WASHING

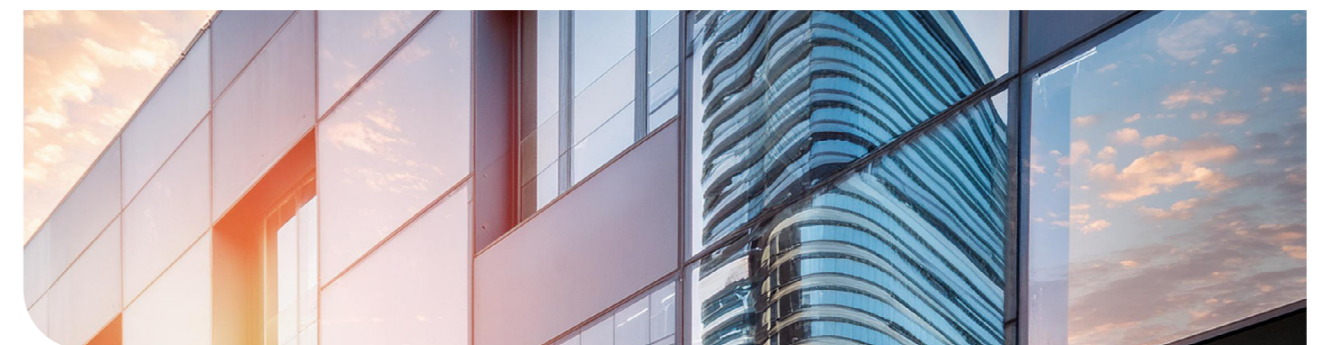
- Use a mild detergent that is free from abrasive components, strong solvents, and alcohols. Ensure the detergent has a pH balance between 5 and 8.5.
- Wash the film gently with a soft cloth, synthetic sponge, or natural sponge. Start from the top and work your way down to ensure thorough cleaning.

#### 3. RINSE

Thoroughly rinse the film with clean water to remove any remaining detergent residue.

#### 4. DRYING

Allow the film to dry naturally or gently dab it dry with a microfiber towel to prevent water spots.



# WARRANTY & DURABILITY

Pressure washer for cleaning facade can be effective, but it requires careful handling to prevent damage. Here are some important considerations:

## PRESSURE AND DISTANCE



Keep the pressure below 1200 psi (pounds per square inch) and maintain a distance of at least 300 mm (approximately 12 inches) from the surface to prevent damage. Use a wide spray angle nozzle with a 40-degree pattern to evenly distribute the water and minimize the risk of lifting the film.

## TEMPERATURE



Ensure that the water temperature remains < 80 degrees Celsius to avoid potential damage to the film.

## SPRAY DIRECTION



Spray the water perpendicular (at 90 degrees) to the surface to avoid lifting the film or causing damage. This helps maintain the integrity of the film's adhesion.

## RECOMMENDED CLEANING FLUID



Use a mild cleaning detergent mixed with water that does not contain strong soluble substances, alcohol, or abrasive components. The detergent should have a pH balance between 5 and 8.5 and be free from strong solvents or alcohols. **Test all cleaning product before use to ensure compatibility with the film.**

## SOFTENING CONTAMINANTS



For stubborn contaminants such as bird droppings or tree sap, soak the affected area with hot, soapy water for several minutes to soften them before rinsing thoroughly. If a harsher chemical is needed, test it first in an inconspicuous area to ensure it does not damage the film.

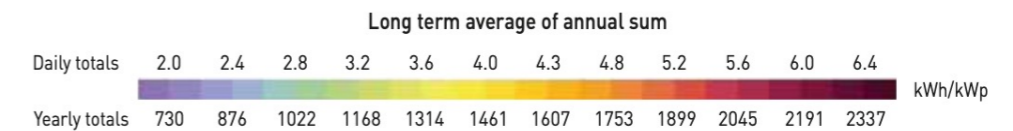
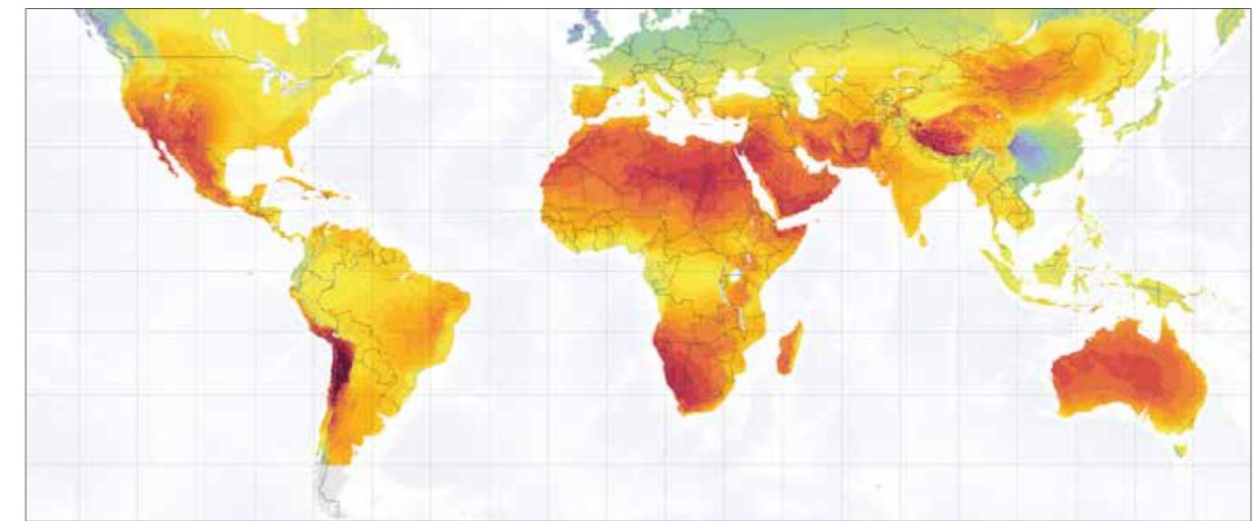
## ADDITIONAL TIPS



- Avoid using abrasive cleaning tools or harsh chemicals that can damage the film.
- Regularly inspect the film for any signs of damage or deterioration and address them promptly.

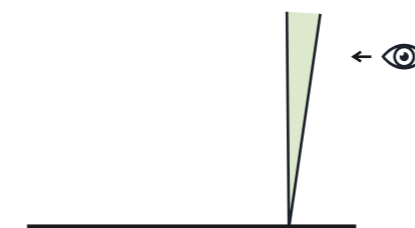
By following these maintenance guidelines, you can keep Exterior Film looking its best while prolonging its lifespan and protecting the underlying surfaces. Regular cleaning helps preserve the film's appearance and ensures optimal performance over time.

Note: some embossed films may age more quickly due to their construction, if excessively exposed to environmental factors such as wind and dust.



World Map of direct normal irradiation.

### Vertical exposure



The face of the graphic is up to 10° from vertical.

Lack of care and maintenance could reduce film's longevity – durability.

Non vertical exposure reduce the durability up to 50% or more, depending by the zone, leading to ≠ warranty.

Replacement of parts can bring to color difference due to the exposure to sunlight, in this case evaluate to replace a bigger parts or portion to avoid a visible color difference.

The installation is intended with a permanent use and under certain condition removal may be difficult or not possible.

**It is recommended that the product be installed within 2 years of the production date to ensure optimal performance and adhesion.**

Serie	Ref.	Warranty (Dep. on countries)		Exp. durability
		GROUP A	GROUP B	
ADVANCED	EXT-Z10	12 years	12 years	15-20 years
	EXT-Z11			
	EXT-Z12			
	EXT-Z13			
	EXT-Z14			
	EXT-Z15			
	EXT-Z16			
PREMIUM	EXT-Z17			
STANDARD	EXT-Z18	6 years	NR	7-10 years (ex. Group C)
	EXT-Z19			
	EXT-Z20			

#### GROUP A

Iceland, **Sweden, Finland, Norway, Denmark**, Estonia, **Ireland**, Latvia, Lithuania, Belarusi (White Russia). **Belgium, Czech, Great-Britain, Luxembourg, Netherlands, Poland, Germany**, Slovakia, Austria, Lichtenstein, Slovenia, **Switzerland**, Moldavia, Canada, Hungary, **Romania**, Ukraine, **France** (except for overseas territories and Corsica). Russia, Federation, Serbia, Georgia, Bosnia/Herzegovina, Croatia, Korea, Montenegro, San Marino, Vatican, Albania, Andorra, Armenia, Azerbaijan, Bulgaria, Corsica, Macedonia, Monaco, EU part of Turkey (Incl. Istanbul), **Italy, Portugal** (continental), **Spain** (continental, Baleares), **Greece**.

#### GROUP B

Kazakhstan, Kyrgyzstan, Mongolia, Portugal (Azores and Madeira), Tadjikistan, Turkmenistan, Uzbekistan, China (continental), AS part of Turkey, New Zealand, Japan, Uruguay, Malta, Tunisia, Israel, Lebanon, Algeria, Morocco, Oman, Greek islands, all African states except for those in country group 5, Bangladesh, Myanmar, Afghanistan, Brunei, Cambodia, Costa Rica, Cyprus, Democratic People's Republic of Laos, Malaysia, Maldives, Nicaragua, Palau, Papua-New Guinea, Philippines, Singapore, Solomon Islands, Sri Lanka, Thailand, Vietnam, Bahamas, Belize, Cuba, Darussalam, Guatemala, Mexico, Micronesia, Nauru, Nepal, **Spain** (Canary Islands), Syria, Tuvalu, Bahrain, Antigua and Barbuda, Barbados, Dominica, Dominican Republic, Dubai, El Salvador, Fiji, French overseas territories, Grenada, Haiti, Honduras, India, Indonesia, Iran, Iraq, Jamaica, Jordan, Kiribati, Kuwait, Marshall islands, Mauritius, Pakistan, Qatar, Samoa, Seychelles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Timor-Leste, United Arab Emirates, Vanuatu, Australia Saudi Arabia, Yemen, Bhutan, Taiwan, USA.

