Decision tree for adhesive films under PPWR

This guide aims to support decisions on whether an adhesive film is identified as packaging under the E.U.'s Packaging and Packaging Waste Regulation, Regulation (EU) 2025/40, also referred to as PPWR.[1] It is intended for companies that manufacture adhesive films, as well as their suppliers and clients, as practical decision-support in assessing adhesive-film applications under the PPWR. Where this guide uses terms defined in the PPWR, those terms should be read in line with the Regulation. Beyond the main legal text, this guide also considers the interpretation of the definition of packaging provided by the European Commission for the case of adhesive films[2]:

"As regards adhesive films used in the production processes of goods, they can be packaging or not depending on their function. Adhesive process films can be designed to enable or facilitate the transformation of raw or intermediate materials into semi-finished or final products, through manufacturing process. If such films remain on the semi-finished products until their **transformation** and/or **assemblage** into subsequent semi-finished products or final products, and act as **enablers of the manufacturing** cycle and **address distinct technical needs** of such processes, they are not packaging under Article 3(1) point (1) of PPWR."

Process films are designed and applied in manufacturing processes, and are not expected to be used for a packaging application. Companies that manufacture process films may therefore not be in a position to provide the technical documentation needed to prepare a Declaration of Compliance for a packaging. Companies placing packaged products on the E.U. market (*manufacturers* in the sense of the PPWR) remain responsible for drafting the Declaration of Compliance for the packaging they intend to place on the market.

This document was compiled by Afera with input and alignment from Members, and is provided for information only. It does not constitute legal advice or a legal interpretation of the PPWR. Companies remain responsible for assessing their own products and obligations, and are encouraged to seek professional legal advice where needed.

[1] Regulation (EU) 2025/40 of the European Parliament and of the Council of 19 December 2024 on packaging and packaging waste, Official Journal of the European Union.

[2] European Commission, Annex to the Communication to the Commission C(2026) 2151, 30 March 2026.

Definitions

The following terms are used in the context of this document:

Substrate: Raw or semi-finished material of any kind, such as metals, plastics, glass, papers or laminates, which may or may not be coated, onto which an adhesive film is laminated.

Adhesive film: Flexible carrier material, such as plastic, paper, fabric or metal, having adhesive properties**.**

Lamination: Process of applying an adhesive film on a substrate, manually or with a machine.

Removal: Process of separating an adhesive film from a substrate, for example manually, chemically, thermically or by a machine.

Object: A semi-finished or final product which combines at least one substrate laminated with an adhesive film. Goods may be objects.

Transformation of a substrate or object: Process applied to an input substrate or object that results in one or more output substrates or objects. Each output substrate or object differs chemically or physically from the input substrate (object); i.e., there is at least one chemical or physical parameter whose value on the input substrate or object is not equal to the value on the output substrate or object. In other words, the substrate (object) is not an invariant of the transformation. Examples of transformations are: (laser) cutting, bending, thermoforming, roll forming, welding, coating, chemical etching.

Assembling of substrates and objects: Process applied to several input substrates or objects that results in an output object differing from all input substrates and objects. In other words, the substrates (objects) are not an invariant of the assembly.

Semi-finished product: Object made by the substrate and all the elements assembled with this substrate, intended to be an input item for at least one transformation or assembling step.

Final product: Object made by the substrate and all the elements assembled with this substrate, intended to be used without further transformation or assembling.

Decision tree

Figure 1 shows the decision tree to assess if an adhesive film is considered packaging under the PPWR or not.

The decision tree consists of four steps, each consisting of several questions addressing the application of the adhesive film: Step 1 identifies if the film is part of a product placed on the market, including as a component of packaging; Step 2 assesses if the film is used as a process film in transformation processes; Step 3 assesses if the film is used as a process film in assembly processes; finally, Step 4 assesses if the film is packaging under the PPWR, if it was not identified as a process film in earlier steps.

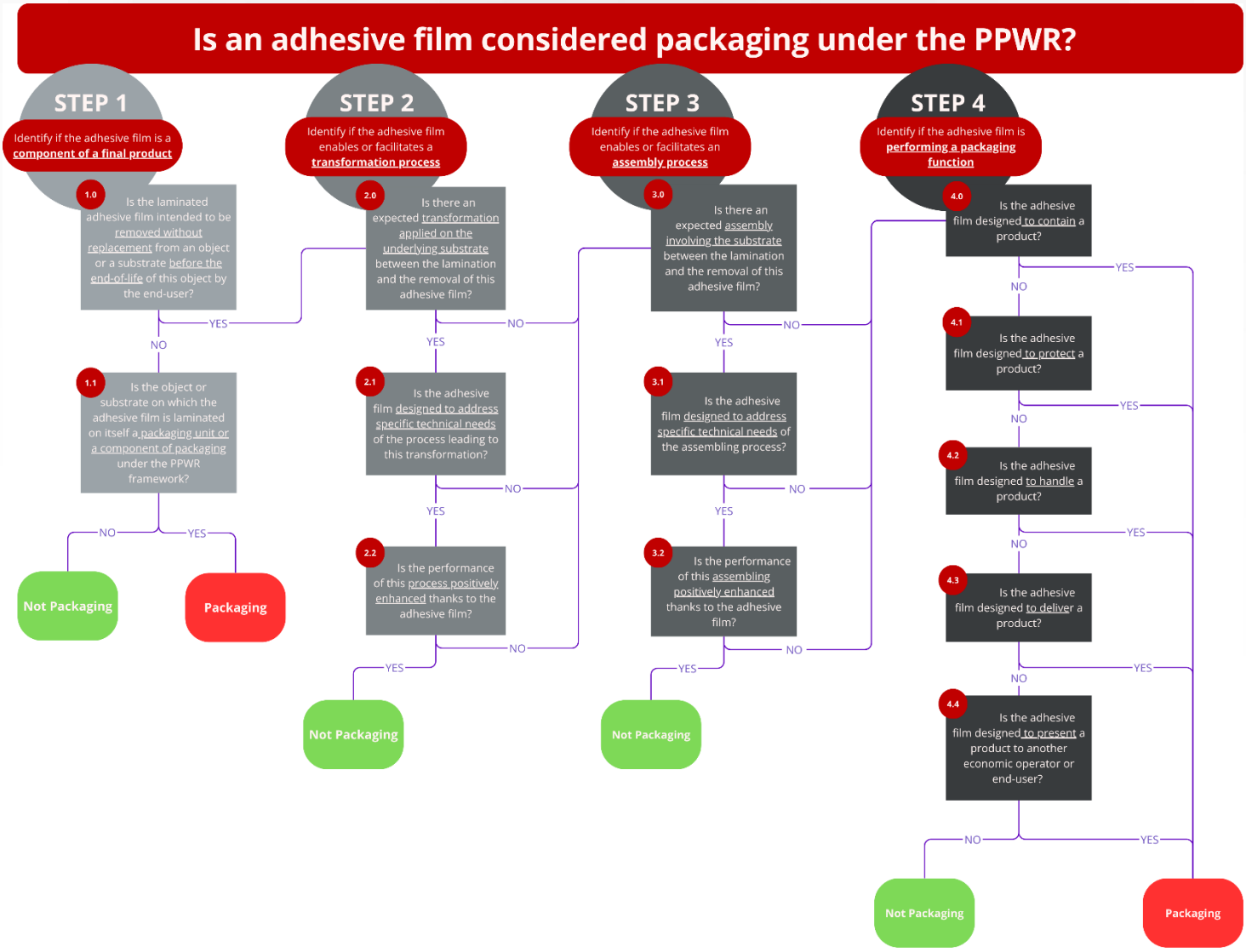

Figure 1. Decision tree to assess if an adhesive film is packaging under the PPWR or not.

Annex

Examples of adhesive film applications and classification

Afera Members considered a list of adhesive film applications in manufacturing processes, and assessed whether each application would be considered a ***process film*** (not packaging under the PPWR) or a ***packaging film*** (packaging under the PPWR).

The examples below illustrate how the decision tree may be applied. They are indicative only and should not be considered exhaustive or as legal determinations for all comparable products or uses. The list may be updated in the future with additional applications.

Table 1 lists the examples considered in the current version of this guidance.

Tables 2 to 5 list the rationale for applying the decision tree to examples where the end of the decision tree is reached in Step 1, 2, 3 or 4 of the decision tree, respectively. In these tables, shaded cells indicate where a decision has been reached: cells in green indicate that the application is not packaging, while cells in red indicate that the application constitutes packaging under the PPWR.

Table 1: Examples of adhesive films considered in this guidance. “Table” refers to the table number where the example is worked out.

Example	Description	Substrate	Semi-finished product	Final product	Table
Mirror backing	An adhesive film is laminated on the back of a mirror to hold together shattered pieces of glass in the event of a breakage. The film becomes inseparable from the mirror throughout the lifetime of the mirror.	Mirror	-	Mirror	2
Carry handle for grouped packaging	A tape is laminated on a plastic film wrapped around a group of bottles, to serve as a carry handle.	Pack of bottles wrapped by a plastic film	-	Pack of bottles wrapped by a plastic film with a handle	2
Laser-cutting process film	An adhesive film is laminated on the surface of a coil of stainless steel intended to be used to manufacture parts of an elevator. The coil is first cut into sheets before more refined cutting with a laser and bending to meet the expected shape. The film is removed after the commissioning of the elevator.	Coil of stainless steel	Stainless steel sheets/Part of an elevator	Elevator installed in a building	3

Example	Description	Substrate	Semi-finished product	Final product	Table
Sandwich panel manufacturing	An adhesive film is laminated on a coil of pre-painted steel intended to be used to manufacture a sandwich panel for the façade of a warehouse. The coil is roll-formed to give the intended shape of this metallic layer. A second metallic layer follows the same process in parallel. Then a layer of insulating material is inserted and dried between the 2 layers. The resulting sandwich panel is then cut, and shipped to a construction site. The film is removed after the construction of the warehouse is finalized.	Coil of pre-painted steel	Sandwich panel	Wall of warehouse	3
Acid-etching process film	An adhesive film is laminated on part of the surface of a glass panel. An acid-etching process is then applied to the surface, affecting the physical properties including the transparency of the surface not covered by the adhesive film. After the process, the film is removed before the next assembling step.	Glass panel	-	Acid-etched glass panel	3
Furniture manufacturing	An adhesive film is laminated onto the surface of a continuous plastic band generated by an extrusion process, intended for the manufacturing of a front panel for a kitchen unit. The band is laminated onto wooden panels, which are vacuum thermoformed and machined to achieve the desired shape. The adhesive film is removed once the kitchen unit has been installed.	Plastic sheet or band generated by extrusion	High-pressure laminates on wooden carriers	Front panels for furniture	3
Splicing tape	An adhesive tape is laminated on a roll of plastic film to splice 2 rolls to ensure the continuity of input material in a printing line. The resulting roll of printed plastic film is intended to be used to manufacture flexible food packaging.	Rolls of unprinted plastic film	Rolls of printed plastic film	Flexible plastic packaging for food	3

Example	Description	Substrate	Semi-finished product	Final product	Table
Plastic bathtub manufacturing	An adhesive film is laminated onto the surface of a plastic sheet generated by a cell cast process, intended for manufacturing a bathtub. The sheet is vacuum thermoformed, foam-backed with fibre-reinforced foam, the edges are cut and the bathtub is installed in a bathroom. The adhesive film is removed once the bathtub has been installed.	Acrylic sheet	Acrylic sheet cut to size	Bathtub	3
Plastic roof box manufacturing	An adhesive film is laminated on the surface of a continuous plastic band generated by an extrusion process, intended to be used to manufacture a roof box for cars. The band is converted into sheets which will be later thermoformed to meet the expected shape. The film is removed after the shaping of the box.	Plastic band generated by extrusion	Sheet of plastic	Roof box for cars	3
Window assembly and installation	An adhesive film is laminated on the surface of an insulated glass unit (IGU). The IGU is intended to be combined with profiles acting as a frame into a window, before being inserted in the façade of a building during the construction phase. The film is removed after the end of the construction works in the building.	Insulated glass unit (IGU)	Window	Window installed on the façade of a building	4
Automotive shipment and storage	An adhesive film is laminated on the body of a car after all assembling steps have been completed, to prevent appearance of defects during the storage and the transportation of the car. The film is removed just before the final delivery to the end-user of the car. The underlying material, the body of the car, is not intended to be transformed at this stage.	Body of a car	-	Body of a car	5

Table 2: Examples concluding in Step 1. Cells in green indicate that the application is not packaging, cells in red indicate that it is packaging.

Example	**Step 1: Identify if the adhesive film is a component of a final product**	
	1.0 Is the laminated adhesive film intended to be removed without replacement from an object or a substrate before the end-of-life of this object by the end-user?	**1.1.** Is the object or substrate to which the adhesive film is laminated itself a packaging unit or a component of packaging under the PPWR framework?
	If No, go to **1.1** If Yes, go to **2.0**	If No, the adhesive film is not packaging, If Yes, the adhesive film is packaging.
Mirror backing	**NO.** The film is intended to stay on the back side during the full lifetime of the mirror and cannot be separated from the mirror.	**NO.** A mirror intended to be used in a building is not a packaging under the PPWR
Carry handle for grouped packaging	**NO.** The tape is intended to stay on the plastic wrapping film until its disposal of this plastic film.	**YES.** The plastic wrapping film around the pack of bottles is packaging under the PPWR.

Table 3: Examples concluding in Step 2. Cells in green indicate that the application is not packaging, cells in red indicate that it is packaging.

Example	**Step 1: Identify if the adhesive film is a component of a final product**		**Step 2: Identify if the adhesive film enables or facilitates a transformation process**	
	1.0 Is the laminated adhesive film intended to be removed without replacement from an object or a substrate before the end-of-life of this object by the end-user?	**2.0** Is there a transformation applied on the underlying substrate between the lamination and the removal of this adhesive film?	**2.1.** Is the adhesive film designed to address specific technical needs of the process leading to this transformation?	**2.2.** Is the performance of this process positively enhanced thanks to the adhesive film?
	If No, go to **1.1** If Yes, go to **2.0**	If No, go to **3.0** If Yes, go to **2.1.**	If No, go to **3.0** If Yes, go to **2.2.**	If No, go to **3.0** If Yes, the adhesive film is a process film and is not packaging under the PPWR.
Laser-cutting process film	**YES.** The film is removed after the commissioning of the elevator and is not replaced during most of the lifetime of the elevator.	**YES.** The laminated coil is converted into sheets, with additional laser cutting and bending before the removal of the film.	**YES.** The adhesive film is specifically designed to be compatible with the wavelength of the laser technology and to ensure that it does not burn or come loose under the thermal and mechanical pressure of the beam.	**YES.** The adhesive film reduces the scrap ratio of the whole manufacturing cycle by significantly reducing the risks of burned areas generated by laser cutting and of scratches generated by pliers and conveyor belts of the manufacturing lines.
Sandwich panel manufacturing	**YES.** The film is removed from the sandwich panel after the end of the construction works and is not there anymore during the lifetime of the building.	**YES.** The laminated pre-painted steel coil is roll-formed, bent and cut before the removal of the film.	**YES.** The adhesive film is specifically designed to follow the deformations of the metallic sheet during roll-forming and bending, without coming loose or tearing apart.	**YES.** The adhesive film reduces the scrap ratio of the whole manufacturing cycle by significantly reducing the risks of scratches generated by pliers, rolls and conveyor belts of the manufacturing lines.

Example	Step 1: Identify if the adhesive film is a component of a final product		Step 2: Identify if the adhesive film enables or facilitates a transformation process	
	1.0 Is the laminated adhesive film intended to be removed without replacement from an object or a substrate before the end-of-life of this object by the end-user?	**2.0** Is there a transformation applied on the underlying substrate between the lamination and the removal of this adhesive film?	**2.1.** Is the adhesive film designed to address specific technical needs of the process leading to this transformation?	**2.2.** Is the performance of this process positively enhanced thanks to the adhesive film?
	If No, go to **1.1** If Yes, go to **2.0**	If No, go to **3.0** If Yes, go to **2.1.**	If No, go to **3.0** If Yes, go to **2.2.**	If No, go to **3.0** If Yes, the adhesive film is a process film and is not packaging under the PPWR.
Acid-etching process film	**YES.** The film is removed after the end of the acid-etching process and is not present anymore during the lifetime of the glass panel.	**YES.** The surface of the glass is transformed during the acid-etching process.	**YES.** The adhesive film is specifically designed to resist to the chemical environment associated with the acid (low pH) and must not come loose during the process.	**YES.** The adhesive film reduces the duration of the acid-etching process by allowing acid to be sprayed on the whole surface, while maintaining a clean boundary on the substrate.
Furniture manufacturing	**YES.** The film is removed after the installation of the kitchen and is not present during the lifetime of the kitchen unit.	**YES.** The plastic band (decorative surface) is 3D laminated onto the wood panel using a membrane press by applying pressure, temperature, and forming.	**YES.** The adhesive film is specifically designed to not come loose or tear during heavy and rapid mechanical processing.	**YES.** The adhesive film reduces the scrap rate during the lamination of the decorative surface when applying a membrane press and during the subsequent mechanical processing of the furniture fronts using automatic conversion centres (drilling, milling, etc.).

Example	Step 1: Identify if the adhesive film is a component of a final product		Step 2: Identify if the adhesive film enables or facilitates a transformation process	
	1.0 Is the laminated adhesive film intended to be removed without replacement from an object or a substrate before the end-of-life of this object by the end-user?	**2.0** Is there a transformation applied on the underlying substrate between the lamination and the removal of this adhesive film?	**2.1.** Is the adhesive film designed to address specific technical needs of the process leading to this transformation?	**2.2.** Is the performance of this process positively enhanced thanks to the adhesive film?
	If No, go to **1.1** If Yes, go to **2.0**	If No, go to **3.0** If Yes, go to **2.1.**	If No, go to **3.0** If Yes, go to **2.2.**	If No, go to **3.0** If Yes, the adhesive film is a process film and is not packaging under the PPWR.
Splicing tape	**YES.** The area of the printed plastic film where the tape was laminated is removed before the plastic film is converted into packaging and filled with food. The tape-containing area does not become part of the finished packaging.	**YES.** The plastic film substrate is printed and dried between the lamination of the tape and the removal of the area around the tape.	**YES.** The tape is specifically designed to resist to the mechanical stress generated by the winding machine at the output of the printing line, to not tear apart and secure its ability to pull the plastic film of the next roll.	**YES.** The tape ensures the continuity of the printing line, reducing the frequency of starts and stops leading to lower scrap ratio and energy intensity.
Plastic bathtub manufacturing	**YES.** The film is removed after the installation of the bathtub and is not there anymore during its lifetime.	**YES.** The acrylic sheet is thermoformed, back-injected with fibre-reinforced foam, and the edges are trimmed using a milling cutter.	**YES.** The adhesive film is designed to withstand the 3D thermoforming process and follow the shape of the substrate. The film adhesion decreases during the process to ensure the easy removal of the film after completion of the manufacturing process.	**YES.** The adhesive film reduces the scrap rate caused by surface damage in the thermoforming line, the automated processing centre for foam backing and edge processing, and during installation of the finished bathtub.

Example	Step 1: Identify if the adhesive film is a component of a final product		Step 2: Identify if the adhesive film enables or facilitates a transformation process	
	1.0 Is the laminated adhesive film intended to be removed without replacement from an object or a substrate before the end-of-life of this object by the end-user?	**2.0** Is there a transformation applied on the underlying substrate between the lamination and the removal of this adhesive film?	**2.1.** Is the adhesive film designed to address specific technical needs of the process leading to this transformation?	**2.2.** Is the performance of this process positively enhanced thanks to the adhesive film?
	If No, go to **1.1** If Yes, go to **2.0**	If No, go to **3.0** If Yes, go to **2.1.**	If No, go to **3.0** If Yes, go to **2.2.**	If No, go to **3.0** If Yes, the adhesive film is a process film and is not packaging under the PPWR.
Plastic roof box manufacturing	**YES.** The film is removed after the shaping of the roof box and is not present during its lifetime.	**YES.** The laminated continuous plastic band is converted into sheets and thermoformed into the box before the film is removed.	**YES.** The adhesive film is specifically designed to follow perfectly the deformations of the plastic sheet during the thermoforming process to not come loose or tear apart.	**YES.** The adhesive film reduces the scrap ratio of the whole manufacturing cycle through a smoother interface between the mould and the substrate during the thermoforming, also leading to an easier demoulding.

Table 4: Examples concluding in Step 3. Cells in green indicate that the application is not packaging, cells in red indicate that it is packaging.

	Step 1	Step 2	Step 3: Identify if the adhesive film enables or facilitates an assembly process		
Example	**1.0** Is the laminated adhesive film intended to be removed without replacement from an object or a substrate before the end-of-life of this object by the end-user?	**2.0** Is there a transformation applied on the underlying substrate between the lamination and the removal of this adhesive film?	**3.0** Is there an expected assembling involving the substrate between the lamination and the removal of this adhesive film?	**3.1**. Is the adhesive film designed to address specific technical needs of the assembling process?	**3.2**. Is the performance of this assembling positively enhanced thanks to the adhesive film?
	If No, go to **1.1** If Yes, go to **2.0**	If No, go to **3.0** If Yes, go to **2.1.**	If No, go to **4.0** If Yes, go to **3.1.**	If No, go to **4.0** If Yes, go to **3.2.**	If No, go to **4.0** If Yes, the adhesive film is a process film and is not packaging under the PPWR.
Window assembly and installation	**YES.** The film is removed after the end of the construction works in the building and is not present during the lifetime of the window.	**NO.** The IGU keeps the same chemical and physical properties until the removal of the film.	**YES.** The laminated IGU is intended to be combined with profiles acting as a frame into a window, before being inserted in the façade of a new building during the construction phase.	**YES.** The adhesive film must stick to the glass during the complete assembly cycle, and be compatible with suction pads applied on the laminated surface to move the IGU or the assembled window. At the same time, the film must also be a barrier to the projections of materials and chemicals on the construction sites, while letting in daylight and not preventing the closure of the window.	**YES.** The adhesive film reduces the frequency of replacement of window glasses at the end of the construction works, reducing replacement needs and delays at the end of construction works.

Table 5: Examples concluding in Step 4. Cells in green indicate that the application is not packaging, cells in red indicate that it is packaging.

Example	Step 1	Step 2	Step 3	Step 4: Identify if the adhesive film is performing a packaging function	
	1.0 Is the laminated adhesive film intended to be removed without replacement from an object or a substrate before the end-of-life of this object by the end-user?	**2.0** Is there a transformation applied on the underlying substrate between the lamination and the removal of this adhesive film?	**3.0** Is there an expected assembling involving the substrate between the lamination and the removal of this adhesive film?	**4.0** Is the adhesive film designed to contain a product?	**4.1** Is the adhesive film designed to protect a product?
	If No, go to **1.1**. If Yes, go to **2.0**.	If No, go to **3.0**. If Yes, go to **2.1**.	If No, go to **4.0**. If Yes, go to **3.1**.	If No, go to **4.1**. If Yes, the film is packaging under the PPWR.	If No, go to **4.2**. If Yes, the film is packaging under the PPWR.
Automotive shipment and storage	**YES.** The film is removed before the final delivery to the end-user of the car and is not there anymore during the lifetime of the car.	**NO.** The underlying substrate is the body of the car which is not intended to be transformed between the lamination and the removal of the film.	**NO.** The underlying substrate is the body of the car whose assembly has been completed when the film is laminated.	**NO.** The adhesive film is not designed to contain the car body since it only covers part of the surface.	**YES.** The adhesive film is designed to protect the surface of the car body, acting as a barrier for the paint against outdoor conditions such as bird droppings, dusty rain and falling elements from trees and vegetation, as well as a protection against friction during the handling by operators.

Afera, the European Adhesive Tape Association unites stakeholders along the value chain of the European tapes industry, to ensure and increase the relevance of the tapes business in the world of tomorrow. The go-to community of the European tapes industry is comprised of 120 member companies from more than 20 European countries that include adhesive tape manufacturers, suppliers (raw materials, machine and packaging), converters, national tape organisations, research institutions and universities. With the goal of making the tapes industry future-proof, Afera actively studies and involves itself in relevant market, standardisation, sustainability and regulatory issues, provides platforms and programmes for discussion and learning, and facilitates contact among its members and all other pertinent bodies at national and international levels. Founded in Paris in 1958, Afera has operated with its head office in The Hague, the Netherlands, since 1999 under the management of Lejeune Association Management.

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