

## AP/280



### Description

Superior quality cast film with a high-level covering power, specifically manufactured for PVC curtain sided vehicles. The special formulation allows the matt surface of the film to have an excellent ink absorbency, high-definition print and colour brilliance even on dark backgrounds.

**Colours:** white matt.

**Printability:** printable by printers using Solvent, Eco-solvent, UV and Latex inks.

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### Technical information

#### Technical data

<b>Film:</b>	P.V.C. Cast.
<b>Film Thickness (without adhesive):</b>	80 +/- 5 $\mu$ m (Op. Istr. n° 4).
<b>Liner:</b>	clay coated paper 1 side siliconised.
<b>Release:</b>	100 +/- 30 cN/20mm.
<b>Adhesive:</b>	ultra-permanent acrylic high cohesion onto plasticized P.V.C.
<b>Grammage:</b>	45 +/- 5 g/m <sup>2</sup> .
<b>Adhesion after 24 h. :</b>	min. 400 N/m. Peel 180° at 20°C onto plasticized P.V.C. (Op. Istr. n° 7).
<b>Method of application:</b>	dry.
<b>Application temperature:</b>	suggested between 10° and 28°C.
<b>Shrinkage:</b>	< 0,2 mm after 48 h. at 70°C on steel (Op. Istr. n° 8).
<b>Temperature resistance:</b>	from -50°C to +90°C adhered to steel no variation (Op. Istr. n° 15).
<b>Seawater resistance:</b>	adhered to steel no variation after 100 h. at 20°C (Op. Istr. n° 14).

#### Average expected lifetime

The data below refer to the film as it is, applied on a standard flat surface and not taking into consideration the final application. Therefore, they are indicative values intended only

as a source of information, and do not constitute a guarantee.

Life estimates are determined on the basis of the results of UV and Xenon accelerated aging lab tests which simulate some conditions when unprocessed, non shaped, non printed film is submitted/**exposed vertically** (+/- 10% from the vertical) and in weather conditions typical of **Central Europe, correctly applied** on a flat surface.

**Factors which drastically reduce the film's expected lifetime:**

- horizontal/oblique exposure (angle greater than +/-10 ° from the vertical).
- exposure to long periods of sunlight as in southern climatic regions, areas characterised by high temperatures, high altitudes or high pollution.
- exposure facing towards the sun.
- imperfect application of the film and improper use of laminating machines.
- attack by solvents and other volatile parts contained in printing inks.
- excessive film deformation.
- improper cleaning and maintenance (use of aggressive detergents, scratches, abrasions and contaminations that may occur during installation or the lifetime of the product).
- surfaces subject to high temperatures.

**The actual lifetime of a product depends on several factors**, including the quality and the preparation of the surface, exposure (environment, weather, exposure angle), film maintenance, pollution. **Therefore, only the operator can determine the suitability of the product and its expected lifetime.**

In order to extend as much as possible the film's lifespan, we recommend following the instructions for Application, Cleaning and Maintenance set out below in this data sheet.

**Data from lab testing (UV – XENON TEST):**

5 years (in the event of UV inks usage, verify the elasticity of the printed film over time because in some cases the usage of these inks could stiffen the film reducing its expected life time).

**Storage**

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1 year, film must be kept warehoused at room temperature (20°C / 50% R.H.) suspended horizontally or placed in a vertically upright position in polythene bag.

**Note**

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The values and the data given are based on tests we believe to be reliable and are typical values intended only as a source of information, and do not constitute a guarantee. **Purchasers must independently determine, before use, the suitability of the material for their own specific use and under their own operating conditions** with the aim to determine if the APA product is suited for the specific goal and is furthermore suited for the use and the pre-selected application-method.

All APA-Print films are produced and packed under very strict quality control procedures in order to guarantee that the films are clean, free of dust and other impurities that might compromise the printability. It's important that the inks are thoroughly dried before application and before any lamination takes place. The residual solvents can otherwise change the products' specific features. Purchasers must independently determine, the suitability of the product with their own printer and inks, under their own operating conditions, with the aim to determine if the APA product is suited for the specific goal.

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## General information

### Warranty / exclusions of liability

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APA materials are guaranteed to be free from all manufacturing defects.

In the event of ascertained defectiveness of the product, APA shall replace the materials used upon manufacturing the decorations.

**APA shall not be liable for any additional costs, such as the work necessary for reprinting the design, the losses related to production time, the costs for removing or re-applying the graphics.** APA, in addition, does not assume responsibility for the replacement of materials not produced by APA.

**A.P.A. SpA cannot be held responsibility for any damages other than the substitution of the goods.**

APA guarantees to maintain the interval of the variability of the colours of its products in the best possible way, using instrumental and visual checks.

To avoid colour variation, all the parts of the vinyl applied have to belong to the same production batch. It is also the case for decorations that are required for a long duration of time, updating or improvements of the decoration. Therefore, it is recommended to ask beforehand for the required material, belonging to the same production batch.

No salesman, representative, agent or distributor has authority to supply data different from those reported in this Technical Data Sheet. To make improvements all products may be modified without prior notice.

For a safe use of the self-adhesive materials by A.P.A. it is recommended to read the dedicated safety information.

For a safe use of the cleaners mentioned in this data sheet it is recommended to read the dedicated safety sheets.

### Print

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The film is developed to be used on major printers using Solvent, Eco Solvent, UV and Latex inks. For a good printability and converting result we recommend allowing the rolls acclimatise in the print room at least 24 hours before printing or converting.

Too much temperature or humidity deviation between material and room climate can cause lay flatness and printability issues. Setting the most suitable profile, to get the best printing result.

### Over-lamination

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**The use of laminations is NOT RECOMMENDED. If necessary, to protect the graphics, use a liquid lamination.**

### Application

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**The film is conceived for a highly professional use.**

**The staff that apply the vinyl must possess the requirements and the training necessary.**

**The film is developed for the decoration of flexible PVC banners and curtain sided, free of folds and seams.**

Before applying the film make a general cleaning of the surface with liquid cleanser and ensure that all oils, waxes or other residuals, including those made by the cleaning, are removed, failure to do so could compromise the film adherence and cause a detachment over time.

Before making the decoration always make a compatibility test between the self-adhesive film and the surface to be decorated.

In order to transfer the graphics from the liner to the PVC curtain to be decorated, we suggest the use of APA Paper Application Tape with a medium or low tack adhesive.

It is recommended to apply the film in a room with a temperature between 10 and 28°C.

**Apply the vinyl only using the dry method. Do not use water.**

After application, it is recommended to leave the PVC curtain extended horizontally for at least 30 minutes in order to allow the adhesive to react to the PVC curtain surface, and decrease the risk to the graphic detaching during tape removal. In order to ease removal, wet the paper surface using a spray bottle with water and wait for at least 10 minutes. In so doing, the tape will be even easier to remove. To transport the PVC curtain, we recommend that it is rolled with the graphics always face up. Never fold the PVC curtain.

At the end of the job, it is recommended to leave the banner extended horizontally or vertically for at least 24 hours. Thereafter, to transport the banner we recommend that it is rolled with the graphics always face up. Never fold the banner.

## Cleaning the vinyl

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**Proceed with the cleaning process if the printed film has been over-laminated. use water with soft cloths.**

Use water with soft cloths and non-aggressive detergents.

**Do not use rough sponges and cloths, abrasive creams or very strong solvents.**

Cleaning with unsuitable products and tools could cause a premature deterioration of the vinyl. To remove ground in dirt, we advise the use of the quick cleaner APA CLEANER FILM and water. **Do not use wax or polishing products** which, in addition to being difficult to remove, may alter or accelerate the deterioration of the film.

If water under pressure is used for cleaning, never aim the jet at the edges of the film because the force of the water could lift it or detach it. However the nozzle must be perpendicular and never oblique to the surface to be cleaned and at least 1 meter away.

The film with a gloss finish, if treated badly, could go matt and stripe beyond remedy.

## Maintenance

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The surface of the vinyl is delicate and therefore should be treated with care. Avoid rubbing against objects that could cause scratches or ripping of the vinyl beyond repair.

An extended exposition to solar rays and to atmospheric agents could provoke a premature aging of the film, especially for the parts exposed horizontally or to the south.

In this regard, gloss films can lose shine and give a matt appearance.

**In conclusion, we recommend protecting the decorated surface from the sun and the elements to the greatest extent possible.**

If a film deterioration should arise, for example, fading, change of colour or become brittle, then an immediate removal is recommended.

**For a good maintenance of the vinyl regular cleaning is recommended.**

## Removal

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As the film is made for permanent applications, removal can prove difficult. However, by heating the film at 50°C with the use of a heat gun can help with this process.

The operations of the vinyl removal are conditioned by many factors, such as the time passed from the application, exposure of the decoration either outdoors or indoors, type of surface, temperature of the room and of the surface, etc... **Therefore it is difficult to quantify and determine General Data the speed and execution time of the removal by A.P.A. S.p.A.**

Should glue traces remain on the surface, these can easily be removed with the ready-for-use liquid APA REMOVER. Before using APA REMOVER always test the compatibility of the product on a corner of the surface which has to be cleaned.

**The company APA cannot be held responsible of any damage caused during the removal phase and/or damages of the surface upon which the film has been applied.**

