

## AP/990-FX



### Description

Gloss high performance highly conformable Cast Film ideal for decorating curved, slatted and riveted surfaces. Easy to apply thanks to the innovative repositionable adhesive “RepoTack-Air Free System” which facilitates the positioning of the film and favours air ejection through micro-channels. Excellent printability, bright and defined colours. Reaction to fire certification (B-S2-D0).

**Colours:** white gloss.

**Printability:** printable with solvent printers, eco-solvent, latex and UV.

### Technical Information

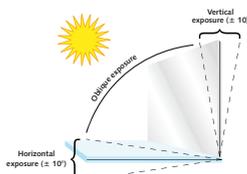
<b>Film:</b>	Cast P.V.C.
<b>Film Thickness (without adhesive):</b>	55 +/- 5 µm (Op. Instr. n° 4).
<b>Liner:</b>	PET-Liner 1 side siliconised “Air Free FTX System” (Micro Channel Technology).
<b>Release:</b>	50 +/- 15 cN/25mm.
<b>Adhesive:</b>	acrylic repositionable ultra-permanent at high cohesion.
<b>Grammage:</b>	25 +/- 5 gsm.
<b>Adesione 20 min.:</b>	min. 200 N/m. Peel 180° a 20°C su acciaio (Op. Instr. n° 7).
<b>Adesione 72 h.:</b>	min. 550 N/m. Peel 180° a 20°C su acciaio (Op. Instr. n° 7).
<b>Metodo di applicazione:</b>	dry method.
<b>Application temperature:</b>	Suggested between 12 and 28°C.
<b>Shrinkage:</b>	< 0,2 mm after 48 h. at 70°C on steel (Op. Instr. n° 8).
<b>Temperature Resistance:</b>	from -50°C to +90°C adhered to steel no variation.
<b>Reaction to fire classification:</b>	B-S2-D0 (Standard EN 13501-1:2007+A1 Classification report CSI n° 0626DCREA14_6).
<b>Seawater resistance:</b>	adhered to steel no variation after 100 h at 20°C (Op. Instr. n° 14).

#### Life expectation\*:

8 years, when vinyl is exposed vertically (+/-10° from vertical) in middle European climate conditions, not printed, not shaped and applied correctly on a flat surface.

#### Reasons for a significant reduced performance level:

- Vinyl exposed horizontally/oblique (more than +/-10° from vertical): reduction up to a third of the data described above.



- Southern-European climate conditions, exposition of the vinyl to long periods of sunlight, areas with high temperatures, high altitudes or highly polluted and/or an inadequate maintenance of the vinyl: further reduction of more than half of the date described above.

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## General Data

**Storage:** 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.

During the storage, gloss vinyl could become matt. This phenomenon, due to the pressure of the rolling up of the material, could worsen when close to the cardboard core and, is more frequent when the storage temperature is above 25°C and/or when the vinyl is particularly glossy and soft. It is possible to return the gloss of the vinyl by heating the surface with an industrial heat gun.

**Application:** the film is conceived for a highly professional use.

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

Customers must determine the suitability of Apa-Print media with their own printers and inks.

Before applying the film always test the compatibility between the self-adhesive vinyl and the surface of the decoration and in particular verify:

1- the stability of the paint on the surface to be decorated. Application on coloured surfaces with the original paint from the manufacturer (OEM) is recommended.

We recommend against the application of film on damaged parts, for example, repaired and re-painted.

2- the presence of oil, wax and other substrates, that could compromise the adhesion of the film and cause it to detach in the future.

Make a general cleaning of the surface with APA EASY CLEANER. Re-clean the corners, edges, slits, rivets and all the areas where the vinyl undergoes an increased shaping with APA CLEANER XT.

Before using APA EASY CLEANER and CLEANER XT always test the compatibility of the products on a corner of the surface which has to be cleaned.

It's important that the inks are thoroughly dried before application and before any lamination takes place.

It is recommended to apply the film in a room with a temperature between 12 and 28°C.

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

3D films, as a result of their particular composition, are more fragile in the elongation phase, due to the presence of some breaking points introduced by the texture. Therefore always pay attention to curves and profiles during the conformation phase.

3D shaped films, if stretched and conformed in the application stage, may present a texture distortion as wide as the deformation of the film.

This vinyl is not compatible with:

- porous surfaces in general either made of plastic or of other material
- surfaces with small superficial tensions, silicone, rubber, PP, PE and all apolar surfaces.
- painted surfaces with poor adhesion of the paint to the surface underneath
- dirty surfaces such as walls and non-smooth surfaces
- flexible surfaces such as banners, truck curtains or textiles
- surfaces that give out gas (out-gassing)
- gasoline vapors or spillages – only short periods of contact and time can be tolerated.

**Cleaning the vinyl:** 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 non-pressurised water. We recommend against the use of wax or polish products.

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.

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**Maintenance:** 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. Therefore, we advise to protect, as much as possible, the decorated surface from sunlight and atmospheric agents. For a good maintenance of the vinyl regular cleaning is recommended.

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**Removal:** during the removal process it is important to apply heat with a heat gun to the self-adhesive vinyl, up to a temperature of 50°C. An in-correct temperature in this phase may cause parts of the paint to detach. In regards to this, pay extra attention to painted plastic parts and areas of the bodywork that have been repainted.

In some cases there has been a colour change with some light coloured paints after the removal of the vinyl. This is due to the reaction generated by the paint on which the vinyl is applied, for which A.P.A. SpA can not be held responsible. It is therefore the responsibility of the customer to determine the suitability of the self-adhesive vinyl with the surface that it is to be applied to. 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 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.

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**General Indications\*:** 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. All duration tests were done on material non-shaped and applied to a flat surface.

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.

APA branded products are manufactured under careful quality control and are warranted against defect in material and workmanship.

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.

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CSI SpA  
Certificazione e Testing

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## RAPPORTO DI CLASSIFICAZIONE *CLASSIFICATION REPORT* 0626\DC\REA\14\_6

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Rapporto di classificazione di reazione al fuoco del prodotto  
*Reaction to fire classification report of product* ..... : **CAST FILM CON ADESIVO  
ULTRAPERMANENTE**

Descrizione  
*Description*..... : **Vedi pag. 2 / see page 2**

Per conto di  
*On behalf of*..... : **A.P.A S.p.A.**

Indirizzo  
*Address*..... : **Via Marradi, 1  
20123 Milano**

Norma tecnica: EN 13501-1 - Classificazione al fuoco di prodotti ed elementi da costruzione -  
**Parte 1: Classificazione sulla base dei dati di prova derivati da prove di reazione al fuoco**  
*Technical standard: EN 13501-1 Fire classification of construction products and building  
elements - Part 1: Classification using test data from reaction to fire tests*

Data / Date ..... : **04/09/2014**

## 1. DATI GENERALI / *GENERAL DATA* :

Identificazione delle norme di riferimento / *Standard reference identification*:

- EN 13501-1:2007+A1 - **Classificazione al fuoco di prodotti ed elementi da costruzione - Parte 1: Classificazione sulla base dei dati di prova derivati da prove di reazione al fuoco**
- *EN 13501-1:2007+A1 Fire classification of construction products and building elements - Part 1: Classification using test data from reaction to fire tests.*
- EN ISO 11925-2:2010 **Prove di reazione al fuoco prodotti edilizi - parte 2 - innesco quando soggetto al diretto contatto della fiamma**
- *EN ISO 11925-2:2010 Reaction to fire tests for building products - part. 2 -ignitability when subjected to direct impingement of flame.*
- EN 13823:2010 **Prove di reazione al fuoco prodotti edilizi - Prodotti edilizi escluse le pavimentazioni esposti ad un attacco termico di un singolo elemento in combustione**
- *EN 13823:2010 Reaction to fire tests for building products \_ Building products excluding floorings exposed to the thermal attack by a single burning item.*

## 2. IDENTIFICAZIONE DELLE PROCEDURE / *PROCEDURES IDENTIFICATION*

- Procedura normalizzata / *Standard procedure* : ..... : **SI / YES**
- Controllo calcoli e trasferimento dati / *Calculation and data transfer check* ..... : **SI / YES**

## 3. DETTAGLI DEL PRODOTTO CLASSIFICATO / *DETAILS OF CLASSIFIED PRODUCT*

3.1 Natura e impiego / *Nature and end use application* :

Il prodotto **CAST FILM CON ADESIVO ULTRAPERMANENTE** è definito come un rivestimento murale decorativo. La sua classificazione è valida per le seguenti condizioni di impiego:

*The product **CAST FILM CON ADESIVO ULTRAPERMANENTE** is defined as a decorative wallcovering. Its classification is valid for the following end use application(s):*

- Rivestimento parete – Incollato su supporto incombustibile o cartongesso
- *Wall covering – Glued on non combustible substrate or gypsum plasterboard*
- Rivestimento soffitto – Incollato su supporto incombustibile o cartongesso
- *Ceiling covering – Glued on non combustible substrate or gypsum plasterboard*

3.2 Descrizione / *Description*:

Il prodotto **CAST FILM CON ADESIVO ULTRAPERMANENTE** è compiutamente descritto nei rapporti di prova in sussidio della classificazione elencati in 5.1

*The product **CAST FILM CON ADESIVO ULTRAPERMANENTE** is fully described in the test reports in support of the classification listed in 5.1.*

## 4. DICHIARAZIONI / *DECLARATIONS*

- Questo rapporto di classificazione definisce la classificazione assegnata al prodotto indicato in copertina secondo le procedure stabilite nella norma EN 13501-1 /
- *This classification report defines the classification assigned to the product mentioned on the cover in accordance with the procedures given in EN 13501-1.*
- I risultati di prova contenuti nel presente rapporto di classificazione si riferiscono esclusivamente al campione provato
- *Test results contained in this classification report relate only to the specimens tested.*
- Il presente rapporto di prova non può essere riprodotto parzialmente senza l'autorizzazione del Responsabile di Laboratorio
- *The test report shall not be reproduced except in full without the written approval of the Managing Director.*

## 5. RAPPORTI DI PROVA E RISULTATI DI PROVA IN SUPPORTO DI QUESTA CLASSIFICAZIONE

### TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

#### 5.1 Rapporti di prova / test reports

Nome del laboratorio / <i>Name of laboratory</i>	Nome del Committente / <i>Name of sponsor</i>	Numero di Identificazione del rapporto di prova / <i>Test report ref. No.</i>	Metodo di prova / <i>test method</i>
CSI S.p.A.	A.P.A S.p.A.	0626/DC/REA/14_1	EN 13823
CSI S.p.A.	A.P.A S.p.A.	0626/DC/REA/14_2	EN ISO 11925-2

#### 5.2 Risultati di prova per prodotti da costruzione esclusi i pavimenti

##### Test results for construction products except floorings

Metodo di prova <i>Test method</i>	Parametro <i>Parameter</i>	Numero di prove <i>Number of tests</i>	Risultati / <i>Results</i>	
			Parametri continui media / <i>Continuous parameter average</i>	Parametri di conformità / <i>Compliance parameter</i>
<b>EN ISO11925-2</b>				
Attacco della fiamma in superficie <i>Surface flame attack</i> Applicazione 30 s / 30 s exposure	Fs ≤ 150 mm	6	(-)	S / Y
Attacco della fiamma all'estremità <i>Edge flame attack</i> Applicazione 30 s / 30 s exposure	Fs ≤ 150 mm	6	(-)	S / Y
Gocce/parti accese / <i>Flaming droplets/particle</i>	Innesco della carta da filtro/ <i>Ignition of the filter paper</i>	12	(-)	N / N
<b>EN 13823</b>				
	FIGRA <sub>0,2MJ</sub>	3	14,9	(-)
	FIGRA <sub>0,4MJ</sub>		4,2	(-)
	LFS < Edge		(-)	S / Y
THR <sub>600s</sub> [MJ]	1,0		(-)	
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]	3	13,1	(-)
	TSP <sub>600s</sub> [m <sup>2</sup> ]		60,6	(-)
Gocce/parti accese <i>Flaming droplets/ particles</i>		3	(-)	N / N

## 6. CLASSIFICAZIONE E CAMPO DIRETTO DI APPLICAZIONE CLASSIFICATION AND DIRECT FIELD OF APPLICATION

### 6.1 Riferimenti e campo diretto di applicazione / Reference and direct field of application

Questa classificazione è stata condotta conformemente alla clausola 8.2 della EN 13501-1:2007+A1.  
*This classification has been carried out in accordance with clause 8.2 of EN 13501-1: 2007+A1.*

### 6.2 Classificazione / Classification

Il prodotto **CAST FILM CON ADESIVO ULTRAPERMANENTE** in relazione al suo comportamento alla reazione al fuoco è classificato:  
*The product **CAST FILM CON ADESIVO ULTRAPERMANENTE** in relation to its fire reaction behaviour is classified.*

**B**

La classificazione aggiuntiva in relazione allo sviluppo di fumo è:  
*The additional classification in relation to smoke production is:*

**s2**

La classificazione aggiuntiva in relazione alle gocce/particelle accese è:  
*The additional classification in relation to flaming droplets/particles is:*

**d0**

Il formato per la classificazione di reazione al fuoco per i prodotti da costruzione eccetto i pavimenti è la seguente:

*The format of the reaction to fire classification for construction products except flooring is:*

Comportamento al fuoco <i>Fire behaviour</i>		Sviluppo di fumo <i>Smoke production</i>			Parti infiammate <i>Flaming droplets</i>	
<b>B</b>	-	<b>s</b>	<b>2</b>	-	<b>d</b>	<b>0</b>

### 6.3 Campo di applicazione / Field of application

Questa classificazione è valida per le seguenti condizioni di impiego /  
*This classification is valid for the following end use conditions:*

- Incollato su supporto incombustibile o cartongesso  
*Glued on non combustible substrate or gypsum plasterboard*
- Senza cavità  
*Without gap*
- Tipo di fissaggio: incollato  
*Type of fixings: glued*



Questa classificazione è anche valida, per i seguenti parametri del prodotto /  
*This classification is also valid, for the following product parameters:*

- Colore: qualsiasi  
*Colour: any*
- Altre denominazioni commerciali incluse:  
*Other trade names included:*  
SERIE CW  
SERIE CAST  
SERIE XF  
SERIE FT  
ST/961-FT  
C/781  
SERIE AP (prodotti con processo cast e dotati di adesivo ultrapermanente / *manufactured with cast and with ultrapermanent adhesive*)  
SERIE L (prodotti con processo di cast e dotati di adesivo ultrapermanente / *manufactured with cast and with ultrapermanent adhesive*)

## 7. LIMITAZIONI / LIMITATIONS

### 7.1 Avvertimento / Warning

Questo documento non rappresenta un'approvazione di tipo od una certificazione del prodotto  
*This document does not represent type approval or certification of the product.*

La classificazione assegnata al prodotto in questo rapporto è relativa ad una dichiarazione di conformità del fabbricante nel contesto del sistema 3 di attestazione di conformità e marcatura CE ai sensi della regolamento sui prodotti da costruzione.

Il fabbricante ha presentato una dichiarazione, che è conservata in archivio. Questo conferma che il progetto del prodotto non richiede specifici processi, procedure o fasi (p.e. senza aggiunta di ritardanti di fiamma, limitazione del contenuto organico, o aggiunta di cariche) che sono diretti a migliorare la prestazione al fuoco per ottenere la classificazione ottenuta. Come conseguenza il fabbricante ha concluso che il sistema 3 di attestazione è appropriato. Il laboratorio di prova, pertanto, non ha svolto alcun ruolo nel campionamento del prodotto per la prova, anche se conserva riferimenti appropriati, forniti dal fabbricante, a fornire la tracciabilità dei campioni provati.

*The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 attestation of conformity and CE marking under the Construction Products Regulation.*

*The manufacturer has made a declaration, which is held on file. This confirms that the products design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate.*

*The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.*

DATA  
Date

04/09/2014

RESP. DIVISIONE  
Division Head

Paolo Mele

RESP. DEL CENTRO  
Managing Director

Raoul Gatti