

L/991.40



Description

High performance ultra clear Cast Film. The low thickness and the high conformability makes L/991.40 the suitable over lamination film for long-term applications on curved, slatted and riveted surfaces. The film gives your prints an ultra-bright appearance and provides excellent resistance to the elements. Certified B-S2-D0 fire resistance according to European classification.

With an excellent UV rays protection, L/991.40 is recommended to improve the durability of printed images onto APAPrint film listed in the section "Application" of this Technical Data Sheet.

Colours: transparent gloss.

Technical information

Technical data

Film:	P.V.C. Cast.
Film Thickness (without adhesive):	40 +/- 5 µm (Op. Istr. n° 4).
Liner:	Clay coated paper 1 side siliconised..
Release:	100 +/- 30 cN/20mm.
Adhesive:	ultra-permanent acrylic high cohesion.
Grammage:	25 +/- 5 gsm.
Adhesion after 20 min.:	min. 300 N/m. Peel 180° at 20°C on steel (Op. Istr. n° 7).
Adhesion after 72 h. :	min. 600 N/m. Peel 180° at 20°C on steel (Op. Istr. n° 7).
Method of application:	dry.
Application temperature:	suggested between 10° and 28°C.
Shrinkage:	< 0,2 mm after 48 h. at 70°C on steel (Op. Istr. n° 8).
Temperature resistance:	from -50°C to +90°C adhered to steel no variation (Op. Istr. n° 15).
Reaction to fire classification:	B-S2-D0 (Standard EN 13501-1:2007+A1 Classification report CSI n° 0626DCREA14_6).

Seawater resistance: 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):

8 years.

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.

Note

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 over laminate 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 usage. Before any lamination takes place it's important that the

inks of the printed graphic are thoroughly dried. The residual solvents can otherwise change the specific features of the product. Purchasers must independently assess the suitability of the product with the aim to determine if the APA product is suited for the specific goal.

General information

Warranty / exclusions of liability

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.

Application

The film is conceived for a highly professional use.

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

This over-lamination film is designed to laminate APA Print long term Cast AP/990-CX, AP/990-FT, AP/990-FX, AP/991, AP/991-KT and is suitable for applications on flat, curved and shaped surfaces.

Before any lamination takes place it's important that the inks of the printed graphic are thoroughly dried. The residual solvents can otherwise change the specific features of the product. Therefore after print we recommend to allow the film to rest for at least 48 hours in a room with a temperature of 20°.

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.

For the application, cold laminating machines can be used.

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 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

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.

CSI SpA
Certificazione e Testing

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

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 / Name of laboratory	Nome del Committente / Name of sponsor	Numero di Identificazione del rapporto di prova / Test report ref. No.	Metodo di prova / test method
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 Test method	Parametro Parameter	Numero di prove Number of tests	Risultati / Results	
			Parametri continui media / Continuous parameter average	Parametri di conformità / Compliance parameter
EN ISO11925-2				
Attacco della fiamma in superficie Surface flame attack Applicazione 30 s / 30 s exposure	Fs ≤ 150 mm	6	(-)	S / Y
Attacco della fiamma all'estremità Edge flame attack Applicazione 30 s / 30 s exposure	Fs ≤ 150 mm	6	(-)	S / Y
Gocce/parti accese / Flamig droplets/particle	Innesco della carta da filtro/ Ignition of the filter paper	12	(-)	N / N
EN 13823				
	FIGRA _{0,2MJ}	3	14,9	(-)
	FIGRA _{0,4MJ}		4,2	(-)
	LFS < Edge		(-)	S / Y
	THR _{600s} [MJ]		1,0	(-)
	SMOGRA [m ² /s ²]	3	13,1	(-)
	TSP _{600s} [m ²]		60,6	(-)
	Gocce/parti accese Flaming droplets/ particles	3	(-)	N / N

Solo la copia completa di questo Rapporto di Classificazione permette un normale impiego dei risultati /
Only the full copy of this classification report allows a normal use of results



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	-	s	2	-	d	0

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

RESP. DIVISIONE
Division Head

RESP. DEL CENTRO
Managing Director

04/09/2014

Paolo Mele

Raoul Gatti