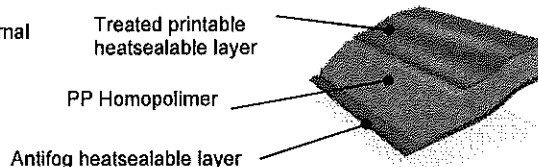


CATA AVA

15-20-25-30-35-40

1. PRODUCT FEATURES

- The antifog properties of this film allows to avoid water drops in the Internal side of the package to assure good transparency.
- External side printable.
- Internal side antifog properties.
- Increase the time of expiration of the product.
- High yield and good mechanical properties.
- Allows an attractive presentation in the point of sale.
- Low environmental impact.
- **Conversion after 3 months is not recommended.**



2. MIGRATION CHARACTERISTICS

Complies with the specifications in force.

3. USE

Food industry. The film complies with EU and FDA regulations for use in food contact.

PROPERTIES	UNIT	VALUE APPLIED CATA_AVA						TOLERANCE	TEST METHOD
		15	20	25	30	35	40		
Thickness	Microns	15	20	25	30	35	40	-7 + 5%	DIN 53 370
Unit weight	g/m ²	13,7	18,2	22,8	27,3	31,9	36,4	±7%	ASTM D-2673
Yield	m ² /kg	73,3	54,9	44,0	36,8	31,4	27,5	±7%	ASTM D-2673
Tensile strength at break	MD	130						≥N-30	DIN 53 455
	TD	240							
Elongation at break	MD	200						≤N+20	DIN 53 455
	TD	60							
Shrinkage	MD	5						≤N+1,5	OPMA TC 4 (a)
	TD	2							
Surface treatment level	dynes/cm	38						> 38	ASTM D-2678
Heat seal strength	N/15 mm	3,0			3,5			≥ N-0,5	DIN 55 529
Seal Initiation Temperature	°C	120						≤ N+3	DIN 66 529
Haze	%	3,5						≤ N + 1	ASTM D-1003
Gloss 45°		80						≥ N-5	ASTM D- 2457
Dynamic Coefficient of Friction		0,30						≤ N+0,05	DIN 53 375
Width	mm	100-2100						N-0+2	---

MD = Longitudinal direction

TD = Transversal direction

For other option please request information



CATA AVA

15-20-25-30-35-40

4. GENERAL REEL CHARACTERISTICS

WIDTH:	From 100 to 2.100 mm ¹
MAXIMUM OUTER DIAMETER:	775 mm ¹
INTERNAL DIAMETER OF core:	76-152 mm
TREATMENT:	BOTH SIDE
LENGTH:	Based on external diameter

¹ For other option, please request information

5. STORAGE CONDITIONS

For optimum performance of the film is recommended storage in a protected area of high humidity and a temperature below 30 ° C.

Material should be conditioned at room temperature at least for 24h before use.

It is recommended to keep the reels in their original packaging until time of use. In case of partial use of a coil or pallet, keep the remaining material without leaning on a hard surface.

6. CONTACT WITH FOOD

The film complies with the EU and FDA regulations for use in contact with food.

Refer to specific information.

7. SECURITY CONDITIONS FOR FILM HANDLING

MSDS available for customer request

8. USE WARRANTY

This film maintains its optimal properties for use up to three months after shipment.

9. NOTES

This information should be considered only for guidance and is based on tests conducted in our laboratory. It should not be considered as collateral for a customer's specific application.



Report: 007/12
Analyst: José M. López Vilarinho
Applicant: Polipropileno de Galicia S.A.U.
Reception data: February, 2012
Analysis data: March, 2012

Laboratory of Chemistry
Technological Research Center
University of A Coruña
Campus de Esteiro s/n
15403 - Ferrol
iquimica@udc.es

Overall migration determination: sample code CATA 40 AVA

This report shows the results obtained in the overall migration determination done with the samples of the film received with the denomination code CATA 40 AVA. The assays were performed according to the European norm EN1186-1:2002 and the results are regulated under the European directives 2007/19/CE and 2002/72/CE, and the future regulation UE 10/2011 "relating to plastic materials and articles to come into contact with foodstuffs".

The assays were made with migration cells, where the different films were put in contact with a food stimulant, during ten days at 40 °C temperature. To make these tests, among the same formulation, the coarse films were chosen to guarantee that all of the films thinner than the selected ones are going to present migration levels under the obtained in these tests.

The simulants used were:

Simulant A: Ethanol 10%, aqueous dissolution.

Simulant B: Acetic acid 3%, aqueous dissolution.

Simulant D2: Olive oil.

Film Code	Overall migration result (mg dm ⁻²)		
	Simulant A	Simulant B	Simulant D2
CATA 40 AVA	1.21	0.80	1.00

The tested films show, in contact with the used simulants (A, B and D2) an overall migration level lower than the established legal limit 10 mg dm⁻².

Ferrol, March 30th, 2012

Analyst: José M. López Vilarinho

CIT technician



DECLARATION OF COMPLIANCE FOR FOOD CONTACT MATERIALS AND ARTICLES

POLIGAL PACKAGING S.A.U. hereby declares that the product **CATA AVA –BIORIENTED POLIPROPYLENE FILM** is produced according to Good Manufacturing Practice (GMP) for materials and articles intended to come into contact with food and complies with the European Union (EU) legislation for food contact materials and articles.

EU

Regulation (EC) No 1935/2004 of 27th October 2004 and its amendments;
Regulation (EC) No 2023/2006 of 22nd December 2006 and its amendments;
Regulation EU No 10/2011 of January 2011 and its amendments.

SPAIN

Royal Decree 866/2008
Royal Decree 1262/2005
Orden SCO/3508/2006

USA

Regulation FDA chapter 21 CFR 177.1520

It also states that:

- The factory is inscribed in the Spanish "Registro Sanitario de Alimentos" (The General Food and Health Register) number 3901868C.
- Raw materials used in the production of the film meet the conditions outlined in the EU legislation, the lists of approved monomers and additives for plastic materials and articles intended to come into contact with foodstuffs;
- Product traceability is ensured;

THIS DOCUMENT WAS ISSUED ELECTRONICALLY AND IS THEREFORE VALID WITHOUT SIGNATURE

Poligal Packaging S.A.U.

Pol. Gándara, Avda. Del Mar, 114-118, 15407 Narón, A Coruña, España
Telef. +34 981 32 05 05 E-mail: info@poligal.com



DECLARATION OF COMPLIANCE FOR FOOD CONTACT MATERIALS AND ARTICLES

- According to the Act. 11/1997 concerning "Packaging and Packaging waste", (including Directive 94/62/EC) and Directive 2004/12/EC, the sum of heavy metals: leads, cadmium, mercury and hexavalent chromium lies under 100 ppm in weight.
- The polymeric materials are used in proportions that ensure the overall provision to the food product will not produce specific migrations values exceeding the limits defined in EU legislation. The following table shows the possible substances with Specific Migration Limits (SML) , which may be present in the film:

Table 1 – Substance Ref No / SML

REF No	SML (T) (mg/Kg)
39090	1,2
38840	5,0
39120	1,2
68320	6,0
38820	0,6
74880	0,3
74640	1,5
83595	18,0
19960	30,0
95360	5,0

Dual use
SiO ₂
Salts calcium, potassium and sodium fat acid
Calcium Stearate
Titan Dioxide

SPECIFICATION OF THE INTENDED USE OR LIMITATIONS

1. Types of food intended to come into contact with material:

Foodstuffs: aqueous, acids, alcohols (up to 10% (V / V)), fats and dried.

2. Duration and temperature of treatment and storage while in contact with the food:

Tested: 10 days, 40°C.

THIS DOCUMENT WAS ISSUED ELECTRONICALLY AND IS THEREFORE VALID WITHOUT SIGNATURE

Poligal Packaging S.A.U.

Pol. Gándara, Avda. Del Mar, 114-118, 15407 Narón, A Coruña, España
Telef. +34 981 32 05 05 E-mail: info@poligal.com



DECLARATION OF COMPLIANCE FOR FOOD CONTACT MATERIALS AND ARTICLES

3. Ratio of the area of the food contact material to the volume used to determine the compliance of the plastic food contact material or article

6 dm²/Kg

This declaration of compliance is valid for a period of 2 years from the date mentioned below and is subject to revision if changes occur in legislation, raw materials, production process or the scientific data that may change the conditions of product conformity.

The statement does not contemplate any change made to the product, resulting from adding any other kind of substances (adhesives and adhesion promoters, printing inks, pigments and dyes, solvents, etc.) or application of the product under conditions not covered in the specification of the intended use or limitations. The person responsible for the alteration of the product must not place it on the market without first ensuring that it complies with relevant legislation of materials and articles intended to come into contact with food.

The issue of this declaration of compliance was based on the EU legislation applicable to materials and articles intended to come into contact with food, in compliance statements from our suppliers of raw materials and product testing.

Narón, 24 March 2015

THIS DOCUMENT WAS ISSUED ELECTRONICALLY AND IS THEREFORE VALID WITHOUT SIGNATURE

Poligal Packaging S.A.U.

Pol. Gándara, Avda. Del Mar, 114-118, 15407 Narón, A Coruña, España
Telef. +34 981 32 05 05 E-mail: info@poligal.com

MATERIAL SAFETY DATA SHEET

In accordance with Directive (CE) 1907/2006 (REACH)
Revised Date: 13/06/2011 Previous date: 10/05/2007

1. COMPANY AND PRODUCT IDENTIFICATION

Identification of the substance or preparation: CATA_AVA

Use of the substance or preparation: biaxially oriented polypropylene film designed for packaging

Company Name and Address: Polipropileno de Galicia, SAU
Polígono de la Gándara, Parc 114-118
Código Postal 15407 Narón-La Coruña-España
Tlf: 981 320505
Fax: 981 328707

Emergency telephone: Telef. 981 32 05 05

2. HAZARDS IDENTIFICATION

This product does not contain any substance classified as hazardous to health or the environment at concentrations that deserve attention in accordance with directive 67/548/EEC and subsequent amendments.

3. COMPOSITION / INFORMATION ON INGREDIENTS

The product is a food grade polypropylene polymer and thus the concentrations of its components are compliant with the regulations of the EC directives.

Contains no hazardous in concentrations which should be taken into account by those directives.

4. FIRST AID MEASURES

Special measures: No special measures required first aid.

General information: At ambient temperature this product is not irritating or hazardous vapors. The measures listed below apply to critical situations (Fire, incorrect process conditions, ...).

After inhalation: In case generated a large amount of polypropylene powder or flakes to remove to a ventilated area. Consult a medical center in case of significant exposure.

After skin contact: Isolated cases of itching have been related staff employed in the handling of plastic films and have been attributed to rare forms of allergies. The use of sunscreen and protective gloves can eliminate these problems.

After contact with molten product, quickly apply cool water. No skin separated from the solidified product. Consult a doctor immediately. Injured areas should be treated as burns.

After ingestion: BOPP films are not toxic if ingested, but it is recommended to consult a doctor. Choking Hazard.

After eye contact: If in an accident, some edge grazed the eye, can cause cuts. Cover the eye and consult a doctor immediately.

5. FIRE FIGHTING MEASURES

MATERIAL SAFETY DATA SHEET

In accordance with Directive (CE) 1907/2006 (REACH)
Revised Date: 13/06/2011 Previous date: 10/05/2007

Extinguishing Media Suitable

Water fog, foam, dry chemical extinguisher, carbon dioxide CO₂.



Extinguishing media which must not be used for safety reasons: None.

Special exposure hazards: fumes given off are constituted mainly of water vapor, carbon dioxide and carbon monoxide. Care must be taken not to inhale decomposition fumes derived from combustion of polypropylene film.

Special protective equipment for firefighters: In case of fire wear self-contained breathing apparatus SCBA.

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions: No special measures required. The coils can roll on the ground. Wear safety shoes. PP film on the floor can cause slipping. Recover the spilled material by sweeping and dispose safely in accordance with local and national regulations.

Precautions for environmental protection: No specific measures are necessary.

Methods for cleaning up: collect the films located on the surface.

Additional information: The films are slippery.

**7. HANDLING AND STORAGE**

Handling: No special requirements are necessary.

PP films are slippery. Pages should not be left on the pavement and obstruct personnel access areas. Personnel performing the manipulation of the rolls should always wear safety shoes.



Take precautionary measures against explosion risks (in the presence of polypropylene powder or flakes) and static electricity.

The rolls and polypropylene film packages should be moved only with equipment designed exclusively for this purpose.

The strap is used for tensioning and palletizing when cut can be dangerous due to its sharp angles. It is recommended to wear eye protection and gloves during cutting and handling of sheet and rolls.



Storage: No special conditions required. We recommend storing the dry film at a temperature below 30 ° C. Observe the general rules on precautions to prevent fires and the risks of static electricity.

Do not smoke

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Occupational Exposure limit values: The UK Regulatory Authorities and the ACGIH defined as OEL para

- Polypropylene powder inhalants: 10 mg/m³ TWA
- Breathable polypropylene powder: 5 mg/m³ TWA

MATERIAL SAFETY DATA SHEET

In accordance with Directive (CE) 1907/2006 (REACH)
Revised Date: 13/06/2011 Previous date: 10/05/2007

9. PHYSICAL AND CHEMICAL PROPERTIES**General Information:**

Appearance: Film

Color: Transparent

Odor: Odorless

Important health, safety and environment information:

<i>Ph:</i>	Not applicable
<i>Point / boiling range</i>	Not applicable
<i>Flash point:</i>	> 350 °C
<i>Flammability:</i>	Not applicable
<i>Explosive properties:</i>	dust explosion limit in air PP 0.02 g / l
<i>Oxidizing properties:</i>	Not applicable
<i>Vapor Pressure:</i>	Not applicable
<i>Density:</i>	0.91 g/cm ³
<i>Solubility</i>	
<i>Solubility:</i>	Insoluble
<i>Liposolubility:</i>	aromatic solvents at high temperatures
<i>Partition coefficient: n-octanol/water:</i>	Not applicable
<i>Viscosity:</i>	Not applicable
<i>Vapor Density:</i>	Not applicable
<i>Evaporation Rate:</i>	Not applicable

Other data

Point / Melting range: 160-170 °C

10. STABILITY AND REACTIVITY

Stability:	This material is stable under normal conditions.
Conditions to avoid:	Sources of ignition.
Materials to avoid:	Middle oxidative intense.
Hazardous decomposition products:	No hazardous decomposition products known at ambient temperature.

MATERIAL SAFETY DATA SHEET

*In accordance with Directive (CE) 1907/2006 (REACH)
Revised Date: 13/06/2011 Previous date: 10/03/2007*

11. TOXICOLOGICAL INFORMATION

The product is biologically inert and not harmful.

12. ECOLOGICAL INFORMATION

The product is biologically inert and non-degradable. The ingestion of solid particles can cause mechanical intestinal blockage or a false sense of fullness, which may be an impact on wildlife.

Avoid dissemination in the environment.

13. DISPOSAL CONSIDERATIONS

In consideration of the European Commission 20/12/1993 on its list of waste materials, the product is in the same level as local waste regulations (Directive EEC 75/442, subsequently amended by the EEC 91/156).

The material can be reused or recycled in accordance with the regulations of the EC Directive 94/62.

Disposal by controlled incineration or in an approved landfill.

14. TRANSPORT INFORMATION

According to national and international standards governing transport by road, rail, air and sea, the product is not dangerous.

15. REGULATORY INFORMATION

This product does not require labeling in accordance with EC Directive 67/548/EEC or local codes.

16. ADDITIONAL INFORMATION

Tips on training: Read the safety data sheet before using the product.

According to our data, the information in this safety data sheet is accurate at the date of this publication. The information provided is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification, since the operations mentioned are beyond our control. This information relates only to the specific material designated and may not be valid for this material used in combination with other materials or in specific processes, unless specified in the text. Recipients of our product must observe, under its responsibility, the rules and



MATERIAL SAFETY DATA SHEET

*In accordance with Directive (CE) 1907/2006 (REACH)
Revised Date: 13/06/2011 Previous date: 10/05/2007*



Laboratory of Chemistry
Technological Research Center
University of A Coruña
Campus de Esteiro s/n
15403 - Ferrol
iquimica@udc.es

Report: 008/12
Analyst: José M. López Vilariño
Applicant: Polipropileno de Galicia S.A.U.
Reception data: February, 2012
Analysis data: March, 2012

Heavy metals determination: sample code CATA 40 AVA

This report shows the results obtained in the four heavy metals determination done with the samples of the film received with the denomination code CATA 40 AVA. In these samples were performed the determination of mercury, lead, cadmium and chromium (+6) according to the norm UNE-CR 13695-1 "Requirements for measuring and verifying the four heavy metals present in packaging".

The assays to determine the presence of: mercury, lead, cadmium and chromium (6+) were performed using microwave digestion according to the norm UNE-CR 13695-1 Annex A - List B and determination using inductively coupled plasma with mass spectrometry detection.

Film Code	Heavy metal content (ppm)			
	Mercury	Lead	Cadmium	Chromium (6+)
CATA 40 AVA	< 2.0	< 0.67	< 1.76	2.63

The European directive 94/62/CE and its later modifications, included the Commission Regulations (EU) 219/2009 say that the "member States shall ensure that the sum of concentration levels of lead, cadmium, mercury and hexavalent chromium present in packaging or packaging components shall not exceed the 100 ppm by weight", therefore it is possible to conclude that the analyzed films are under the legal limits.

Analyst: José M. López Vilariño

CIT technician

Ferrol, March 30th, 2012