



TERPHANE REGULATORY INFORMATION

We would like to inform that:

All of our Terphane® polyester films are in compliance with the Model Toxics Legislation developed by the Coalition of North Eastern Governors (CONEG). We do not intentionally add lead, mercury, cadmium or hexavalent chromium, polybrominated biphenyls or polybrominated diphenyls ethers to any of our products (Directive 2002/95/EC-ROHS and 2004/12/EC amending directive 9462/EEC and it's amendment 2005/20/EC).

All of our Terphane® polyester films do not contain any of the 31 Priority Chemicals listed by the United States Environmental Protection Agency (EPA).

All of our Terphane® polyester films do not contain any animal-based additives, nor are they processed on equipment used to process animal-based materials.

All of our Terphane® polyester films and their functional components are either included on the Toxic Substances Control ACT/EPA-USA (TSCA) Chemical Substance Inventory, or are exempt from the listing requirements.

All of our Terphane® polyester films pose no significant risk of cancer or reproductive toxicity from exposure to substances that are characterized as known to the State of California to cause cancer or to be a reproductive toxicant under the California Safe Drinking Water and Toxic Enforcement Act (Proposition 65 – June 19, 2009).

All of our Terphane® polyester films do not contain any perfluorochemicals (PFCs) and their precursors according to Senate Bill 1313 (SB 1313- February 20, 2008)

All of our Terphane® polyester films do not contain natural rubber latex (NRL) or synthetic rubber latex, as well as, do not contain thiurams.

All of our Terphane® polyester films are in compliance with Ordonnance du DFI - Le Département Fédéral de L'intérieur sur les objets et matériaux – Annexe 6

All of our Terphane® polyester films do not contain any of the following known, probable or suspected endocrine system disruptors: p-Nonylphenol, Bisphenol A, Di(2-ethylhexyl) phthalate (DEHP), p-Octylphenol, Butyl benzyl phthalate, Dicyclohexyl phthalate, Dibutyl phthalate (DBP), Di(2-ethylhexyl) Adipate (DEHA), Di-n-butyl Phthalate, Di-n-hexyl Phthalate, Di-n-pentyl Phthalate, Di-n-propyl Phthalate, Di-n-octyl Phthalate (DnOP), D-isonyl Phthalate(DINP), Di-isodecyl Phthalate (DIDP), perfluorooctane sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), p-sec-Butylphenol, p-t-Butylphenol, p-i-Pentylphenol, p-t-Pentylphenol and Polyvinylchloride (PVC).

All of our Terphane® polyester films do not contain the controlled ozone-depleting substances cited in the Federal Register V.56, N.14, January 22, 1991.

All of our Terphane® polyester films do not contain any of the substance mentioned in the CEPA list, including the recently released Batch 9 up to futures Batch 12 substance list.

All of our Terphane® polyester films do not contain any FDA known allergens substances, Fluorotelomers or Colophony (Rosin resin).

All of our Terphane® polyester films do not contain BHA (butylated hydroxyanisole), BHT (butylated hydroxtoluene) or TBHQ (tertiary butylhydroquinone), hydrazine, dioxins, nitroamines or synthesis nanoparticles.

A handwritten signature in black ink, appearing to read "Roberto Cavalcanti".

Roberto Cavalcanti
Technical Manager

A handwritten signature in black ink, appearing to read "Marcos F. Vieira".

Marcos F. Vieira
R&D Manager



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All of our Terphane® polyester films do not contain any Fluorotelomers

All of our Terphane® polyester films do not contain Colophony (Rosin resin).


Gabriel Cardade
Technical Manager
Terphane Inc.



TERPHANE REGULATORY INFORMATION

We would like to inform that:

All of our Terphane[®] polyester films are in compliance with the Model Toxics Legislation developed by the Coalition of North Eastern Governors (CONEG). We do not intentionally add lead, mercury, cadmium or hexavalent chromium, polybrominated biphenyls or polybrominated diphenyls ethers to any of our products (Directive 2002/95/EC-ROHS).

All of our Terphane[®] polyester films do not contain any of the 31 Priority Chemicals listed by the United States Environmental Protection Agency (EPA).

All of our Terphane[®] polyester films do not contain any animal-based additives, nor are they processed on equipment used to process animal-based materials.

All of our Terphane[®] polyester films and their functional components are either included on the Toxic Substances Control Act (TSCA) Chemical Substance Inventory, or are exempt from the listing requirements.

All of our Terphane[®] polyester films pose no significant risk of cancer or reproductive toxicity from exposure to substances that are characterized as known to the State of California to cause cancer or to be a reproductive toxicant under the California Safe Drinking Water and Toxic Enforcement Act (Proposition 65 – December 22, 2000).

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Marcos F. Vieira
R&D Manager

Ardellas



TERPHANE® FILMS - FOOD CONTACT STATUS

DEAR SIR,

I WOULD LIKE TO INFORM THAT OUR POLYESTER FILM PRODUCTS NAMED TERPHANE 10.10, 10.15, 10.21, 10.25, 10.28, 10.41, 10.51, 10.55, 10.61, 10.62, 10.63, 10.65, 10.81, 10.82, 10.87, 10.91, 10.93, 10.94, 22.00, 22.07, 24.00, 71.20, 78.10 and 78.15 AS WELL AS THE POLYESTER SIDE OF METALLIZED FILMS TERPHANE 32.10, 32.15, 32.21, 32.51, 32.61, 30.41, 30.50 AND 30.56 ARE CONSIDERED IN COMPLIANCE WITH THE FOLLOWING REGULATIONS, REGARDING RAW-MATERIALS, ADDITIVES, OVERALL AND SPECIFIC MIGRATION LIMITS:

- 21 CODE OF FEDERAL REGULATIONS (CFR) 177.1630, UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA);
- REGULATION 1935/2004/EC AND DIRECTIVES: 2002/72/EEC (AMENDED BY 2005/79/EC), 94/62/EC (AMENDED BY 2004/12/EC) AND 67/548/EEC FROM EUROPEAN UNION;
- BRAZILIAN/MERCOSUR RESOLUTION 105 DATED 19/MAY/1999, AGÊNCIA NACIONAL DE VIGILÂNCIA SANITÁRIA (ANVISA);
- GERMANY RECOMMENDATION BfR (BgVV) Chapter XVII.

YOU MUST MAKE YOUR OWN DETERMINATION THAT YOUR USE OF THIS PRODUCT IS SAFE, LAWFUL AND TECHNICALLY SUITABLE IN YOUR INTENDED APPLICATIONS.

A handwritten signature in black ink, appearing to read "Gabriel Henrique R. Caridade". The signature is fluid and cursive, with a large initial 'G'.

Gabriel Henrique R. Caridade
Process Engineer



SUNSHINE PLASTICS

John Southard
MCI Foods Inc.
13013 Molette St.
Santa Fe Springs CA. 90670

Dear John:

Re: FDA Approval

Per your request, this is to certify that all film sold to MCI Foods by Sunshine Plastics, conform to FDA regulations (Section 177.1520) (C) (3.1) regarding the use of polyester in food contact articles. Furthermore, this letter confirms the FDA conformance of items manufactured as "foods items."

Food and Drug Guarantee

The undersigned, Sunshine Plastics, with principal offices at 1600 Gage Road, Montebello, CA 90640 hereby certifies that:

- A. The polyester films comprising each shipment and delivery of your items listed above are not (1) adulterated or misbranded within the meaning of the Federal Food, Drug and Cosmetic Act as amended, including the Food Additive Amendment of 1953; and (2) are not an article which may not be used under provision of Section 404, 505, or 506 of the Federal Food, Drug and Cosmetic Act.
- B. Sunshine Plastics Corp., further guarantees that if any article contains a color additive, said color additive has been or will be from a batch certified in accordance with the applicable regulations promulgated under the Federal Food, Drug and Cosmetic Act.
- C. Sunshine Plastics Corp. also certifies that packaging material supplied to you, conforms to FDA regulations (Section 177.1520) (C) (3.1) regarding the use of polyester in food contact articles.

This is a continuing product guaranty that will continue in full force and effect until terminated by written notice. Such notice of termination shall be effective only for orders placed after receipt of such notice.

Sincerely,
SUNSHINE PLASTICS CORP.

Roy Sabraw



HSPET PW25

Provisional Data Sheet

PW25 is a transparent film with one side heat-sealable. It can be used as a monofilm and for printing and laminating in packaging applications.

Amorphous PET
Sealant Layer

PET Core



KEY FEATURES

- Sealable to itself or to other materials such as: APET, PETG, PVDC, or sheet metal
- The non-sealing side has the standard properties of a plain polyester film
- Complies with US FDA 21 CFR 177.1630 requirements for food packaging applications

TYPICAL STRUCTURES

- Ink / PW25
- Print Web / Ink / Adh / PW25

APPLICATIONS

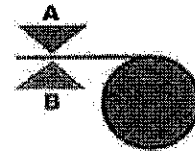
- Heat Seal
- Mono Web

TECHNICAL DATA

PROPERTIES		METHOD	UNITS	TYPICAL VALUES				
Gauge			0.0001"	48	60	80	92	120
Nominal Yield			lb/in ²	41,200	33,000	24,700	21,600	16,500
Tensile Strength at Break	MD	ASTM D882	lb/in ²	37,000	37,000	38,000	39,000	39,000
	TD			36,000	36,000	37,000	37,000	37,000
Young's Modulus	MD	ASTM D882	lb/in ²	69,600	69,800	67,700	67,400	61,300
	TD			69,600	69,600	69,800	70,900	70,200
Elongation at Break	MD	ASTM D882	%	116	120	125	125	125
	TD			120	125	132	137	137
Heat Shrinkage (150°C for 30 minutes)	MD	ASTM D1204	%	2.1	2.0	2.0	1.8	1.6
	TD			0.6	0.9	0.6	1.0	0.2
Coefficient of Friction	Treated vs. Plain	ASTM D1894	µs	0.40	0.30	0.30	0.30	0.30
				µg	0.39	0.28	0.26	0.26
Haze (1 sheet)		ASTM 1003	%	2.6	3.1	3.4	3.7	5.3
Seal Initiation Temp			°F	250	250	250	250	250
MVTR - 100 °F, 90% RH		ASTM F1249	g/100in ² /day	1.9	1.8	1.6	1.4	1.1
O ₂ Barrier 73 °F		ASTM D3985	cc/100in ² /day	6.0	5.6	4.9	4.0	3.3

A = Plain Surface

B = Treated Surface



We accept no responsibility for results obtained by the application of this information or the safety or suitability of our products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes.

Datasheet

Bell Tasty Foods



DuPont Teijin Films™

MYLAR® OWF

Product Description

Mylar® OWF is a co-extruded, one side amorphous, heat sealable polyester film designed to be used as an overwrap film. This film is suitable for use in contact with food.



- ← Clear PET film
- ← Co-extruded APET heat seal layer

Approvals

FDA Food Contact Status - All gauges of Mylar® OWF comply with the Food and Drug Administration regulation 21 CFR 177.1630 -- Polyethylene phthalate polymers. This regulation describes films which may be safely used in contact with all types of food excluding alcoholic beverages. Uncoated films such as Mylar® OWF can be used to contain foods during oven cooking or oven baking at temperatures above 250 °F.

Typical Properties

Available Thickness (Gauge)
48; 80; 120

Property	Thickness	Value	Units	Test
BARRIER				
Gas Permeability - O ₂ , 24 hr	48	6.0	cc/100 in ²	ASTM D1434 77°F/75% RH/1 ATM
Gas Permeability - O ₂ , 24 hr	80	3.7	cc/100 in ²	ASTM D1434 77°F/75% RH/1 ATM
WVTR	48	2.8	g/100 in ² /day	ASTM F1249 38°C, 90% RH
WVTR	80	1.8	g/100 in ² /day	ASTM F1249 38°C, 90% RH
OPTICAL				
Haze	48	3.0	%	ASTM D1003
Haze	80	4.5	%	ASTM D1003
Haze	120	6.0	%	ASTM D1003
TLT	48	88.7	%	ASTM D1003
TLT	80	88.6	%	ASTM D1003
TLT	120	88.5	%	ASTM D1003
PHYSICAL				
C.O.F. (dynamic) A-B	48 - 80	0.5		ASTM D1894
Density	48 - 80	1.40	g/cc	
Elongation at Break MD	48 - 80	100	%	ASTM D882A
Elongation at Break TD	48 - 80	90	%	ASTM D882A
Tensile Strength MD	48 - 80	27	kpsi	ASTM D882A
Tensile Strength TD	48 - 80	29	kpsi	ASTM D882A
Yield (nominal)	48	42,200	in ² /lb	
Yield (nominal)	80	24,800	in ² /lb	
Yield (nominal)	120	16,500	in ² /lb	
THERMAL				
Heat Seal Temp. Range	48 - 80	220-400	°F	
Shrinkage MD (150°C)	48 - 80	1.25	%	Unrestrained @ 150°C/30 min

Shrinkage MD (150°C)	120	1.5	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	48 - 80	0.30	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	120	1.5	%	Unrestrained @ 150°C/30 min

Contact Info

DuPont Teijin Films U.S. Limited Partnership
 3600 Discovery Drive
 Chester, VA 23836 USA
 Tel: (800) 635-4639
 Fax: (804) 530-9867

Disclaimer

Note: These values are typical performance data for DuPont Teijin Films' polyester film; they are not intended to be used as design data. We believe this information is the best currently available on the subject. It is offered as a possible helpful suggestion in experimentation you may care to undertake along these lines. It is subject to revision as additional knowledge and experience is gained. DuPont Teijin Films makes no guarantee of results and assumes no obligation or liability whatsoever in connection with this information. This publication is not a license to operate under, or intended to suggest infringement of, any existing patents.

CAUTION: Do not use in medical applications involving permanent implantation in the human body (DuPont Teijin Films Medical Policy). For other medical applications, see the Medical Caution Statement. DuPont Teijin Films accepts no liability for use of its products in medical applications not reviewed and approved by DuPont Teijin Films or for product misuse. DuPont Teijin Films supplies products to an agreed specification and does not manufacture products designed specifically for medical end use.

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