JAN 2008

Cellulose Acetate Film and Sheet

High Performance, Environmentally Compatible Plastic Film and Sheeting

DESCRIPTION:

Grafix® Acetate is a cast cellulose acetate film. It is an excellent general purpose plastic which is an industry standard in graphic arts, packaging, printing, overlays, and many other applications. Now certified as compostable, this polymer film is ideal for a wide range of applications, where a low environmental impact material is required.

ENVIRONMENTAL FEATURES:

- Manufactured from Wood Pulp and Cotton Linters (100% Petroleum Free)
- Certified as 100% Biodegradable in US and Europe.
- Recyclable with both Paper and Plastic
- When incinerated, Grafix Acetate produces CO2, Water and Non-Toxic Ash

PRODUCT FEATURES:

- Optical Clarity
- Lay Flat
- Printable (screen printing & offset/Litho)
- Thermoformable
- Can Be Heat-Sealed
- Approved for Direct Food Contact
- Dimensionally Stable To 180°F/60°C
- Commercially Available

PRODUCT CONFIGURATIONS:

- Gauges (.001”-.020”/25um-500um)
- Variety of Finishes
- (Matte, Gloss, Satin, Metallized)
- Custom Formulation and Enhancements

CONVERSION TO CUSTOMER SPECIFICATION

- GRAFIX® Specializes In Converting Plastic Film & Sheet To Customer Specification:
- Sheeting, Trimming, Slitting
- Rolls Produced To Specified Width, Length, & Core Size
- Hole Punching & Corner Rounding
- Custom Packaging
- Sourcing Of Non-Stock Plastic Film & Sheet

CONVERTED STOCKED PRODUCTS

GRAFIX® Maintains A Wide Variety Of Sizes Of Sheets, Rolls And Packs Of Acetate

GRAFIX® Plastics

A Division of GRAFIX, Inc.

5800 Pennsylvania Ave. Maple Heights, OH. 44137

(800) 447-2349 (216) 581-9050 FAX (216) 581-9041

E-MAIL: filminfo@grafixplastics.com

WEB http://www.grafixplastics.com

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Environmental facts about Grafix Acetate Film and Sheeting:

Manufacturing: Environmental Compatibility From The Start

Grafix Acetate products is made of the polymer Cellulose Di-Acetate. The polymer is producedfrom wood pulp and/or cotton linters with acetic anhydride. The polymer is mixed with a small amount of plasticizer and traces of anti-block particles.

- The wood pulp is produced from managed forests in North America. All our wood pulp suppliers have active replanting programs whereby they are planting more trees than they harvest.
- The second raw material acetic anhydrideis a simple derivative of acetic acid.... which is table vinegar.
- All the main components of Acetate are produced from natural, non-food related sources, and not fossil fuels.

Biodegradation and Composting

- Grafix Acetate Products are Certified as Compostable and thus Biodegradeable as per ASTM D6400 and DIN EN 13432
- Degradation has been certifed in soil burial tests and sewage sludge cultures.
- Grafix Acetate Film and Sheet Products are very stable and durable under normal use conditions.

Recycling Grafix Acetate Products

- Material is 100% recyclable back into film products.
- Grafix Acertate can be recycled with paper in re-pulping processes, though some process modification might be required.
- Grafix Acetate can be recycled with other thermoplastics in small proportions.

Incineration of Grafix Acetate Products

Fully combusted acetate waste produces only CO2, Water, and a little non-toxic ash.
No release of toxic gasses or heavy metals.

Landfill

Grafix Acetate Products will not release toxic chemicals as it breaksdown.
Materials will fully disolve in landfill leaving nothing behind.

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SOME POTENTIAL APPLICATIONS:

- √ Ideal for many type of packaging
  - Food Packaging
  - Non-Food Packaging
- √ Identification & Labeling
- √ Storage
- √ Apparel
- √ Thermoforming
- √ Art & Office Supplies
- √ Imaging Films
- √ Medical
- √ Electro-Optical
- √ Laboratory Analysis
- √ Forensics

FEATURES:

Optical Clarity
Lay Flat
Printable
Variety of Gauges Available
Large Inventory Maintained

FINISHES:

Clear
Matte

GAUGES:

.003"
.005"
.0075"
.010"
.015"
.020"

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PROPERTIES OF ACETATE

Properties based on .005" Clear Di-Acetate

Properties of other gauges and finishes of Acetate can vary.

Physical Properties:

Property	Typical Value	Units	Test Method
Specific Gravity	1.32		
Tensile Heat Distortion	227°	°F	
Linear Heat Shrinkage 209° for 15 min.	> 2	%	ASTM D1204-4
Water Vapor Permeability	0.74	lbs/in2 per 24 hours	
Yield Strength	1387	lbs/in2	ASTM D882-91
Tensile Strength at Break	1904	lbs/in2	ASTM D882-91
Elongation at Break	30-45	%	ASTM D882-91
Elastic Modulus In Tension	67357	lbs/in2	ASTM D882-91
Mullen Bursting Strength	91.4	lbs/in2	ASTM D774-46
Elmendorff Tear Strength	0.252	lbs.	ISO 1974

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