

Description

Clysar® AFG is a strong, clear, biaxially oriented, heat-shrinkable, anti-fog, polyolefin-based film. The film has excellent gloss, stretch recovery, toughness and tear resistance, and will not brittle with age.

Clysar® AFG Films

DATA SHEET

Uses

Clysar® AFG is commonly used for food applications where ambient temperature variation creates fogging problems in the package. Clysar® AFG is ideally suited to overwrap fresh food products, including sausage, poultry and other trayed meat products, as well as individual, prepared and multi-packed produce and fruit. This grade of Clysar® film combines anti-fog, excellent shrinkage and recovery properties to maintain good-looking packages through all distribution steps. Clysar® AFG is designed for use on packages that will be refrigerated or stored at room temperature. Treated film can be printed for high-quality, colorful consumer presentation.

Significant Features

Sealing

- Compatible with all shrink sealing systems.
- Sealing temperature range is wide.
- Seals easily even under less-than-optimum conditions.
- Seals at higher speeds than many other cross-linked shrink films.
- Seals are thin and less likely to leak than ordinary polyolefin films.

Shrinking

- Allows lower tunnel temperatures that can result in utility cost savings.
- Runs on wide variety of tunnels and shrinks under less-than-optimum conditions. It is not dependent on high air velocity to get good shrink.
- Produces medium shrink force.
- Requires sufficient air evacuation for proper package appearance.

Standard Put-Ups

- Clysar® AFG is available in 45, 60 and 75 gauge.
- Flat film is available as AFG or treated (75 gauge only) on one side for printing as AFGT.
- Flat film is available in widths from 5" to 68" in 1/4" increments.
- Folded film is available as AFGF.
- Folded film is available in widths from 5" to 47" in 1/2" increments.
- Folded film will have half the linear footage of flat film in the same gauge and roll dimensions.
- Film is wound on 6" cores to the standard roll sizes shown in Table 1.



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Clysar®

FDA/USDA Status

Clysar® films sold by Clysar, LLC, for food packaging use comply with U.S. Food and Drug Administration (FDA) requirements under the Federal Food, Drug and Cosmetic Act as amended. Clysar complies with FDA regulation 21 CFR 177.1520—Olefin polymers, allowing use for articles that contact food, except for articles used for packing or holding food during cooking.

Use

Clysar, LLC, does not recommend heating or cooking foods in Clysar® films. High temperature, high speed, heat sealing of polyolefin shrink films will release small amounts of “smoke,” which should be removed by adequate ventilation in normal commercial practice.

Disposal

Preferred options for disposal are: (1) recycling, SPI Code—Class 7; (2) incineration with energy recovery; and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled.

Storage

Storage below 32°C (90°F) is recommended. Prolonged exposure to temperatures moderately above 32°C (90°F) or brief exposure to temperatures well above 32°C (90°F) may cause difficulty in unwinding film.

For more detailed information on the safe handling of Clysar® films, a “Safety in Handling and Use” guide or the OSHA Material Safety Data Sheets can be obtained from your Clysar representative.

Summary of Properties

Clysar® AFG - Linear Footage Flat Film (Table 1)

Core I.D., in.	Roll O.D., in.	Gauge		
		45	60	75
6	11	11,660	8,750	7,000
6	14	23,320	17,500	14,000
6	18 3/4	-	35,000	28,000

Typical Properties of Clysar® AFG (Table 2)

Property	ASTM Test Method	Unit	Gauge		
			45	60	75
Haze (avg)	D1003	%	2.2	3.5	3.5
Gloss at 20°	D2457	GU	135	130	120
COF, Kinetic	D1894		0.28	0.3	0.3
Shrinkage, 100°C	D1204	% (area)	66	50	50
Shrink Force (100°C, 365 psi shrink stress)	D2838	g/in	95	130	145
Stiffness Modulus (avg)	D882	kpsi	55	60	60
Tensile Strength (avg)	D882	kpsi	13	15	15
Elongation (avg)	D882	%	120	145	150
WVTR	F1249	g/100 in ² /24 hr (37.8°C, 100% RH)	2.3	1.6	1.4
Oxygen Transmission	D3985	cc/100 in ² /24 hr (23°C, 50% RH)	1000	600	500
CO ₂ Transmission	-	cc/100 in ² /24 hr (23°C, 0% RH)	2500	2500	2300

Note: These values are typical data for Clysar® AFG shrink film and are not product release specifications, warranties or limiting specifications. Values are based on initial production and test runs during development of this film.

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The technical data contained herein are guides to the use of Clysar® films. The advice contained herein is based upon tests and information believed to be reliable, but users should not rely upon it absolutely for specific applications because performance properties will vary with processing conditions. It is given and accepted at user's risk, and confirmation of its validity and suitability in particular cases should be obtained independently. Clysar makes no guarantees of results and assumes no obligations or liability in connection with its advice. This publication is not to be taken as a license to operate under, or recommendation to infringe, any patents.

CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see Clysar Medical Caution Statement, MCS_02.