

Description

Clysar® LEG (LE Gold) is a thin, heat-shrinkable, “low energy” polyolefin film that exhibits minimum force when the film shrinks, making it ideal for products that typically collapse or curl while wrapping. LEG is extremely easy to use on all equipment and achieves great-looking packages without major fine-tuning and rejects.

Clysar® LEG Films

DATA SHEET

Uses

Delivering gentle, balanced shrink, strong seals, high strength and tight cleanup at low temperatures, LEG film will not deform or collapse soft, fragile or thin products. Clysar® LEG is recommended to wrap products like:

- Air filters
- Stationery and thin pads of paper
- Open-sided chipboard boxes
- Low-profile products like thin magazines and stickers
- Bundled or unitized printed materials

Significant Features

Sealing

- Provides strong, durable seals over a wide temperature range.
- Compatible with all sealing mechanisms, even PVC systems, in a wide range of equipment including poorly maintained machines.
- Sealing temperatures for hot knives start at approximately 300°F.
- Does not corrode sealing wires or equipment.
- Does not leave a carton deposit on sealing wires.

Shrinking

- Provides the lowest shrink force in the Clysar® product line.
- Has very high available shrinkage and consistently delivers a clean shrink appearance.
- Tunnel temperature for clean shrink starts at approximately 280°F.
- Forgiving under less-than-optimum tunnel conditions.
- Compatible with all air evacuation systems.
- Balanced shrinkage.

General

- Excellent film durability, even at freezer temperature.
- Superior cold and hot slip.
- Good tear resistance.
- Will not embrittle with age.
- High gloss, clarity and sparkle.



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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 4; (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.

Standard Put-Ups

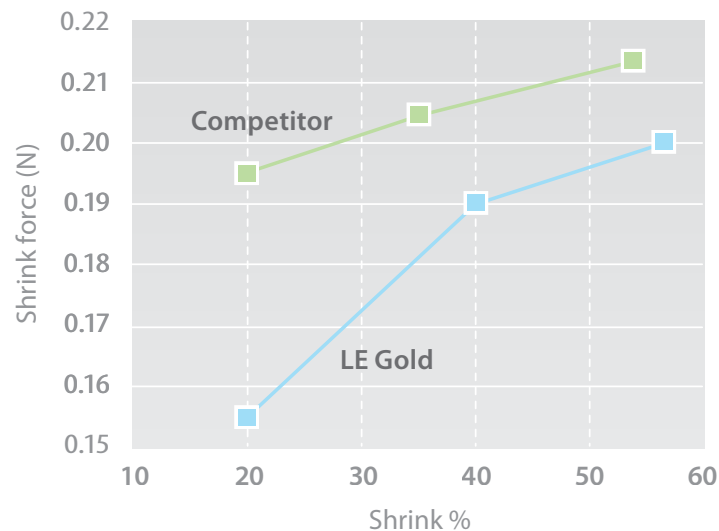
- Clysar® LEG is available in 50, 60 and 75 gauge as either flat or folded film.
- Flat film is available as Clysar® LEG in widths between 5" to 68" in 1/4" increments.
- Folded is available as Clysar® LEGF in widths between 5" to 47" in 1/2" increments.
- Folded film has half the linear footage of flat film for same gauge and roll dimensions.
- Flat film is available pre-perforated.
- Surface treatment for improved hot slip is offered as Clysar® LEGS in 50, 60 and 75 gauge.
- Film is wound on 3" and 6" cores to the standard roll sizes as shown in Table 1.
- Double length rolls are available on 3" and 6" cores. Quad length rolls are available on 6" cores.

Summary of Properties

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

Core I.D., in.	Roll O.D., in.	Gauge		
		50	60	75
3	9 1/2	10,500	8,750	7,000
3	13	21,000	17,500	14,000
6	11	10,500	8,750	7,000
6	14	21,000	17,500	14,000
6	18 3/4	-	35,000	28,000

Shrink % vs Force



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Typical Properties of Clysar® LEG (Table 2)

Property	ASTM Test Method	Unit	Gauge		
			50	60	75
Haze (avg)	D1003	%	2.5	2.5	2.7
Gloss at 20° (min)	D2457	GU	130	130	130
COF, Kinetic	D1894		0.1	0.1	0.1
Shrinkage, 102°C (216°F)* --10 min	D1204	% (area)	60	60	60
Shrink Force (100°C, 260 psi shrink stress)	D2838	g/in	70	75	85
Stiffness Modulus (avg)	D882	kpsi	30	30	30
Tensile Strength (avg)	D882	kpsi	9	9	9
Elongation (avg)	D882	%	125	130	130
Tear Strength (avg) (Elmendorf)	D1922	g	15	18	24
Spencer Impact	D3420	lbf	6	7	8
WVTR	F1249	g/100 in ² /24 hr	3.3	3.2	3.0
Oxygen Transmission	D3985	cc/100 in ² /24 hr	860	850	820
CO ₂ Transmission	D1434	cc/100 in ² /24 hr.	2550	2500	2450

* Film temperature

Note: These values are typical data for Clysar® LEG shrink film and are not intended for use as limiting specifications.

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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.