

Clysar® EZG

Description

Bemis Clysar® EZG (EZ Gold) is a strong, clear, biaxially oriented, heat-shrinkable, polyolefin film.

Uses

Bemis Clysar® EZG is used where a premium product appearance is required. Excellent optics, clean shrink appearance, and strong, durable seals are obtained on shadow boxes, irregular shapes, and general purpose overwrapping under a wide range of operating conditions. Clysar EZG is an excellent choice for high-speed applications and static sealing.

Significant Features

Sealing

- Provides very consistent, strong, durable impulse wire seals.
- Makes good electrostatic seals that will hold up through distribution.
- Has a wide heat-sealing range.
- Will heat seal at lower temperatures than other multilayer films.
- Does not give off harmful gases or corrode sealing wires or equipment.
- Does not leave a carbon deposit on sealing wires, thus eliminating the need for an additional expensive Teflon® tape over top of the sealing wire to get clean seals. (Teflon is a registered trademark of the DuPont Company)
- Pinhole-free seals.

Shrinking

- Consistently delivers a clean shrink appearance with minimum dog ears, chatter marks, and crow's feet.
- Shrinks at lower temperatures than other multi-layer films.
- Has a wide shrink temperature range and high available shrinkage.
- Good burn-through resistance.
- Has lower shrink force than most other polyolefin-based films.
- Shrinkage is balanced.
- Excellent release characteristics in hot pack-off applications.

General

- Excellent film durability, even at freezer temperatures.
- Good sheet stiffness.
- Will not embrittle with age.
- High gloss, clarity and sparkle.
- Outstanding performance on high-speed automatic shrink equipment.
- Uniform package appearance due to more consistent air evacuation.

Standard Put-Ups

- Clysar EZG is available in four thicknesses (micron): 12.5, 15, 19, and 25, as either single-wound (SW) or center-folded (CF or F) film.
- Single-wound film is available in widths from 110 – 1720 mm in 10 mm increments.
- Center-folded film is available in widths from 130 – 880 mm in 10 mm increments.
- Center-folded film will have approximately half the linear length of flat film for same thickness and roll dimensions.
- Film is wound on 76 and 152 mm cores to the standard roll sizes as shown in Table 1.

Table 1
Clysar® EZG
Linear Length (m) – Flat Film

Core I.D., mm.	Roll O.D., mm.	Micron			
		12.5	15	19	25
76	242	3,200	2,660	2,130	1,600
76	331	6,400	5,330	4,260	3,200
152	280	3,200	2,660	2,130	1,600
152	356	6,400	5,330	4,260	3,200
152	477	10,660	10,660	8,530	6,400

EU Regulation/FDA/USDA Status

Clysar films sold for food packaging use comply with the food contact regulations of European Union and U.S. Food and Drug Administration requirements under the Federal Food, Drug, and Cosmetic Act as amended. Clysar complies with FDA regulation 21 CFR 177.1520–Olefin polymers, allowing use in contact with all types of foods. This FDA compliance and a continuing guarantee from Bemis Clysar will meet USDA requirements for packaging meat and poultry products.

Use

Bemis Clysar does not recommend cooking foods in Clysar. High temperature and high-speed sealing of Clysar 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

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 and OSHA Material Safety Data Sheets can be obtained from your Clysar representative.

Table 2
Typical Properties of Clysar® EZG

Property	ASTM Test Method	Units	Thickness (Micron)			
			12.5	15	19	25
Haze (avg)	D1003	%	2.0	2.0	2.0	2.2
Gloss at 20° (min)	D2457	–	145	130	130	130
COF, Kinetic	D1894	–	0.21	0.23	0.23	0.23
Shrinkage, 136°C (277°F) 10 min	D1204	% (area)	65	86	86	86
Shrink Force, 110°C (230°F) based on shrink stress 330 psi	D2838	N/15 mm	0.446	0.521	0.637	0.869
Stiffness Modulus (avg)	D882	MPa	531	531	531	531
Tensile Strength (avg)	D882	MPa	69	69	69	69
Elongation (avg)	D882	%	90	90	90	100
Tear Strength (avg.) (Elmendorf)	D1922	N	0.078	0.098	0.118	0.147
Spencer Impact	D3420	mm-kg	58	69	81	104
WVTR	F1249	g/m ² /24 hr	29.5	27.9	24.8	17.1
Oxygen Transmission	D3985	cc/m ² /24 hr	12,245	10,540	9,920	6,355
CO ₂ Transmission	D1434	cc/m ² /24 hr	46,500	16,275	15,345	13,950

Note: These values are typical data for Clysar® EZG 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 Bemis 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. Bemis 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 Bemis Medical Caution Statement, MCS_01.