

Clysar® VHG

Description

Clysar® VHG is a thin gauge, clear, biaxially oriented, heat shrinkable polyolefin film. It provides strong seals and excellent optics under a wide range of operating conditions.

Uses

Clysar VHG is designed for the packaging of lightweight, low-abuse products. It combines excellent optics and seal strength with the economics of high yield, reduced changeover and downtime, and greater use of storage space.

Significant Features

Sealing

- Provides strong, durable seals with all sealing systems, including knives, wires and electrostatic overlap.
- Has a wider sealing temperature range than most other value-oriented films
- Requires little or no cooling dwell.
- Is forgiving to less-than-optimum seal equipment conditions.
- Seals do not become brittle with age.
- Does not corrode sealing wire or equipment.
- Does not leave a carbon deposit on sealing wires.
- Pinhole-free seals.

Shrinking

- Good burn through resistance.
- Forgiving under less than optimum tunnel conditions.
- Compatible with all air evacuation systems. Pin perforation requires a backup roller or very sharp pins, or the film may stretch and not perforate over the pins.
- Average available shrinkage.
- Balanced shrinkage.

General

- Will not embrittle with age.
- Good tear resistance. More resistant than most other value-oriented films.
- High gloss, clarity and sparkle.
- Remains durable at freezer temperatures.

Standard Put-Ups

- Clysar VHG is available in 12.5 micron 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 – 760 mm in 10 mm increments. Standard CF stock sizes are available in 50mm width increments.
- Center-Folded film will have approximately half the linear length of flat film for same thickness and roll dimensions.
- Available in standardized pre-perforated pattern or as plain film.
- Film is wound on 76 and 152 mm cores to the standard roll sizes as shown in Table 1.

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

Core I.D., mm.	Roll O.D., mm.	12.5 Micron
76	242	3,200
76	331	6,400
152	280	3,200
152	356	6,400
152	477	12,800

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 (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. This FDA compliance and a continuing guarantee from Bemis Clysar will meet FDA requirements for packaging meat and poultry products.

Use

Bemis Clysar does not recommend cooking foods in Clysar Shrink Film. 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® VHG

Property	ASTM Test Method	Unit	12.5 Micron
Haze (avg)	D1003	%	2.0
Gloss at 20° (min)	D2457	(photocell)	135
COF, Kinetic	D1894		0.20
Shrinkage, 102°C (216°F)* 10 min	D1204	% (area)	50
Shrink Force, 100°C	D2838	N/15 mm	0.521
Stiffness Modulus (avg)	D882	MPa	414
Tensile Strength (avg)	D882	MPa	103
Elongation (avg)	D882	%	135
Tear Strength (avg) (Elmendorf)	D1922	N	0.147
Spencer Impact	D3420	mm-kg	92
WVTR	F1249	g/m ² /24 hr	29.5
Oxygen Transmission	D3985	cc/m ² /24 hr	12,245
CO ₂ Transmission	--	cc/m ² /24 hr	46,500

*Film Temperature Note:

These values are typical data for Clysar VHG 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.