

Description

Clysar® ABL is a strong, clear, cross-linked, biaxially oriented, polyolefin shrink film.

Clysar® ABL Films

DATA SHEET

Uses

Clysar® ABL is used where lower processing temperatures, superior package characteristics and a tough, durable wrap are required. Excellent shrinkage and seal strength are obtained under a wide range of operating conditions. It is specifically designed to function on the complete range of L-sealers and tunnels. Its outstanding memory and recovery provides attractive packaging after repeated handling.

Significant Features

Sealing

- Compatible with all sealing mechanisms including systems designed for PVC films.
- Due to a relatively low modulus, Clysar® ABL is not suited to high-speed form/fill/seal systems.
- Sealing temperature range starts 20° to 25°F lower than most polyolefin films.
- Seals easily even under less-than-optimum conditions with virtually no pinholes in the seal.
- Consistently seals at higher speeds than most other polyolefin films.
- Does not corrode sealing wires or equipment.
- Does not leave carbon deposit on sealing wires.



Shrinking

- Has a very wide shrink temperature range starting at 285°F.
- This film has no definite burn-through point. It will begin to cloud when approaching overheating.
- Compatible with air evacuation systems. Pin perforation requires a backup roller or the film may stretch and not perforate over the pins. Air evacuation is critical, as the lack of pinholes will not allow evacuation through the seals.
- This film can be run on most shrink tunnels with consistently good results. It is not dependent on high air velocity to achieve good shrinkage.
- Has medium shrink force and very high available shrinkage.
- Shrinkage is balanced.

General

- Outstanding film memory.
- Good tear and puncture resistance.
- Very forgiving on less-than-optimum equipment.
- Resists embrittlement with age.
- Remains durable at freezer temperatures.

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Clysar®

Standard Put-Ups

- Clysar® ABL is available in 50, 60, 75 and 100 gauge.
- Flat film is available as ABL in widths from 5" to 68" in 1/4" increments.
- Folded film is available as ABLF in widths from 5" to 47" in 1/2" increments.
- Folded film will have approximately half the linear footage of flat film for same gauge and roll dimensions.
- Available in standardized pre-perforated pattern or as plain film in 50, 60 and 75 gauge only.
- Film is wound on 3" and 6" cores to the standard roll sizes shown in Table 1.

Summary of Properties

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

| Core I.D., in. | Roll O.D., in. | Gauge | | | |
|-------------------|-------------------|--------|--------|--------|--------|
| | | 50 | 60 | 75 | 100 |
| 3 | 9 1/2 | 10,500 | 8,750 | 7,000 | 5,250 |
| 3 | 13 | 21,000 | 17,500 | 14,000 | 10,500 |
| 6 | 11 | 10,500 | 8,750 | 7,000 | 5,250 |
| 6 | 14 | 21,000 | 17,500 | 14,000 | 10,500 |
| 6 | 18 | - | 35,000 | 28,000 | 21,000 |

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.

Typical Properties of Clysar® ABL (Table 2)

| Property | ASTM Test Method | Units | Gauge | | | |
|------------------------------------|------------------|-------------------------------|-------|------|------|------|
| | | | 50 | 60 | 75 | 100 |
| Haze (avg) | D1003 | % | 2.2 | 2.3 | 2.4 | 2.6 |
| Gloss at 20° (min) | D2457 | GU | 135 | 130 | 130 | 125 |
| COF, Kinetic | D1894 | | 0.28 | 0.26 | 0.23 | 0.20 |
| Shrinkage, 102°C (216°F)* --10 min | D1204 | % (area) | 65 | 65 | 65 | 65 |
| Shrink Force | D2838 | g/in @ 100°C | 95 | 110 | 130 | 160 |
| Stiffness Modulus (avg) | D882 | kpsi | 37 | 37 | 37 | 37 |
| Tensile Strength (avg) | D882 | kpsi | 13 | 13 | 13 | 13 |
| Elongation (avg) | D882 | % | 120 | 125 | 130 | 135 |
| Tear Strength (avg) (Elmendorf) | D1922 | g | 20 | 25 | 30 | 35 |
| Spencer Impact | D3420 | lbf | 8 | 9.5 | 11 | 15 |
| WVTR | F1249 | g/100 in ² /24 hr | 2.3 | 2.5 | 2.0 | 1.5 |
| Oxygen Transmission | D3985 | cc/100 in ² /24 hr | 1000 | 900 | 800 | 600 |
| CO ₂ Transmission | D1434 | cc/100 in ² /24 hr | 2500 | 2400 | 2200 | 1950 |

*Film Temperature

Note: These values are typical for Clysar® ABL shrink film and are not 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.