

Description

Clysar® EZ-R is a strong, clear, biaxially oriented, heat-shrinkable, polyolefin-based, stiff film with advanced hot slip characteristics.

Clysar® EZ-R Films

DATA SHEET

Uses

Clysar® EZ-R film is used to shrink-wrap products that demand a premium appearance and speeds of more than 100 ppm. An excellent choice for static (lap) and wire sealing, EZ-R film is extremely easy to run under a wide range of operating conditions. The film's advanced hot slip characteristics allow fast, efficient pack-out, even when packages are still warm. Solving the headaches common to high-speed films, EZ-R delivers excellent optics; clean, balanced shrink; and strong, durable seals. Ideal for digital media, frozen foods, irregular shapes and all general-purpose applications.

Significant Features

Sealing

- Provides very consistent, strong, durable impulse wire seals.
- Allows superior electrostatic seals that will hold up through distribution.
- Has a wide heat-sealing range.
- Pinhole-free seals.
- Efficiently seals at speeds of 100+ packages per minute.

Shrinking

- EZ-R has been developed to increase the visual impact of the product with special attention being paid to dog ears and crow's feet.
- Has a wide shrink temperature range and a high available shrinkage.
- Good burn-through resistance.
- Shrinkage is the cleanest of the films in its class.

General

- Excellent film durability, even at freezer temperature.
- Outstanding sheet stiffness.
- Will not embrittle with age.
- Unmatched clarity, sparkle and gloss.
- Engineered with improved slip properties to help eliminate pack-out issues.
- Uniform package appearance due to more consistent air evacuation.

Standard Put-Ups

- Clysar® EZ-R is available in four gauges: 45, 60, 75 and 100 as either flat or folded film.
- Flat film is available as Clysar® EZ-R in widths from 5" to 68" in 1/4" increments.
- Folded film is available as Clysar® EZ-RF in widths from 5" to 37" in 1/2" increments.
- Folded film has half the linear footage of flat film in the same gauge and roll dimensions.
- Print treated film is available as Clysar® EZ-RT. This treatment is available only on 60 gauge flat film.
- Surface treated film for improved hot slip is offered as Clysar® EZ-RS.
- Film is wound on 3" and 6" cores to the standard roll sizes shown in Table 1.
- Perforation is optional for all EZ-R gauges: 45, 60 and 75.



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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® EZ-R - Linear Footage Flat Film (Table 1)

Core I.D., in.	Roll O.D., in.	Gauge			
		45	60	75	100
3	9 1/2	11,660	8,750	7,000	5,250
3	13	23,320	17,500	14,000	10,500
6	11	11,660	8,750	7,000	5,250
6	14	23,320	17,500	14,000	10,500
6	18 3/4	-	35,000	28,000	21,000

Typical Properties of Clysar® EZ-R (Table 2)

Property	ASTM Test Method	Unit	Gauge			
			45	60	75	100
Haze (avg)	D1003	%	2.1	2.7	2.8	3.3
Gloss at 20° (min)	D2457	GU	137	139	135	12.7
COF, Kinetic	D1894	-	0.2	0.2	0.2	0.2
Shrinkage, 136°C (277°F) -- 10 min	D1204	% (area)	75	75	75	75
Shrink Force, 110°C (230°F) Based on shrink stress 330 psi	D2838	g/in	65	90	110	114
Stiffness Modulus (avg)	D882	kpsi	77	77	77	77
Tensile Strength (avg)	D882	kpsi	16	16	16	16
Elongation (avg)	D882	%	124	144	138	120
Tear Strength (avg) (Elmendorf)	D1922	g	3.6	5	7	9
Spencer Impact	D3420	lbf	2.0	2.8	3.5	4.4
WVTR	F1249	g/100 in ² /24 h	2.0	1.6	1.4	-
Oxygen Transmission	D3985	cc/100 in ² /24 h	721	536	412	-

Note: These values are typical data for Clysar® EZ-R 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.