Description

Clysar® EV-HPG™ all-purpose shrink film provides a recyclable*, fully functional alternative to our popular HP Gold film. It is extremely easy to run and delivers a wide operating window. The film's strength, high shrink force and sparkling clarity allow brands to improve the sustainability of almost any packaging application without compromise to cost, efficiency or shelf appeal. Ideal for a wide range of applications, including food.



*Clysar® EV-HPG™ film prequalified for the Store Drop-off label through the **How2Recycle®** program. You will need to contact How2Recycle® directly and complete a request form to use the Store Drop-off label on your EV-HPG™ package. If you have any questions regarding the information necessary to complete the label request, please contact your Clysar representative.

Clysar, LLC

888-4-CLYSAR marketing@clysar.com

Highway 67 South Clinton, IA 52732

www.clvsar.com



Clysar® EV-HPG™ All-Purpose Film DATA SHEET

A Premier All-Purpose Recyclable* Shrink Film for Today's Sustainability Goals

Get everything you love about Clysar's go-to HP Gold shrink film in a recyclable*, right-gauged, fully functional solution.

Uses

This versatile next-generation film provides all the features that have made Clysar's HP Gold film a long-standing industry favorite. It's easy to make great-looking packages for almost any kind of product, on any shrink equipment, at virtually any speed, under wide operating windows. It's sparkling, strong and clear. It's forgiving of less-than-perfect conditions.

EV-HPG[™] film offers the sustainability that today's brands and consumers demand, from true recyclability* to reduced carbon impact with up to 9% source reduction.

Packagers looking to transition out of traditional films will find EV-HPG™ film a reliable drop-in solution to meet environmental goals with minimal disruption.

Significant Features

Industry Standard Gauges

• Available in 35, 42, 55, 70, 90, 115 and 150 gauge film.

Sustainability

- Recyclable*, responsibly produced in U.S. manufacturing facilities.
- How2Recycle® prequalified for Store Drop-off recycling.
- Uniquely designed for trouble-free recovery and reprocessing in recycling streams.
- Offers equal performance with up to 9% less material than conventional HP Gold film.
- Produced utilizing ReClaim™–Clysar's SCS Global certified pre-consumer recycled-content resin.
- Reduces food waste and extends shelf life in food contact applications.

Equipment

- Offers a wide operating window.
- Extremely operator-friendly and easy to run on all types of equipment.
- Performs reliably on older equipment and in less-than-ideal conditions.
- Provides a true drop-in replacement for non-recyclable films.

Sealing

- Creates strong, durable seals with all sealing systems.
- Offers a wide sealing range.
- Requires little or no cooling dwell time.

Shrinking

- Provides high shrink force with tight, crisp, even shrink.
- Resists heat and avoids burn-through for irregular shapes and voids.
- Great for bundling, multi-packs and shipping stabilization.

Shelf Appeal

- Delivers premium appeal with high gloss, clarity and shine.
- Provides excellent tear and abrasion resistance.
- Ideal for most brand packaging applications.



** Up to 30% Recycled Content



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 using traditional heating or cooking methods for foods wrapped in Clysar® shrink films. For conditions specific to microwave cooking, please request documentation that is specific for your application through your Clysar representative.

Disposal

Preferred options for disposal are: (1) Store drop-off recycling; and (2) incineration with energy recovery.

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 can be obtained from your Clysar representative.

Clysar, LLC

888-4-CLYSAR marketing@clysar.com

Highway 67 South Clinton, IA 52732

www.clysar.com



Standard Put-Ups

- Offered in industry standard 35, 42, 55, 70, 90, 115 and 150 gauge films.
- Flat film is available in custom widths ranging from 5" to 98" in 1" increments.
- Folded film is available in 1" increments. Minimum width of 5", maximum of 42" for all gauges.
- Custom widths may be available.*
- Pre-perforated film in standardized pattern is available for all gauges for both flat and folded film.
- Wound on 3" and 6" cores to the standard roll sizes shown in Table 1.
- *Contact your Clysar representative for width-specific information.

Summary of Properties

Clysar® EV-HPG™ - Linear Footage Flat Film (Table 1)

Core I.D., in.	Roll O.D., in.	Footage Put Up	35 Gauge Flat	42 Gauge Flat	55 Gauge Flat	70 Gauge Flat	90 Gauge Flat	115 Gauge Flat	150 Gauge Flat
3	9.5	Single	-	12,500	9,540	7,500	5,820	4,560	3,500
3	10.5	Single	15,000	-	-	-	-	-	-
6	11	Single	-	12,500	9,540	7,500	5,820	4,560	3,500
6	12.5	Single	15,000	-	-	-	-	-	-
6	14	Double	-	-	19,080	15,000	11,640	9,120	7,000
6	18.75	Quad	-	-	38,160	30,000	23,280	18,240	14,000

Clysar® EV-HPG™ - Linear Footage Folded Film

Core I.D., in.	Roll O.D., in.	Footage Put Up	35 Gauge Folded	42 Gauge Folded	55 Gauge Folded	70 Gauge Folded	90 Gauge Folded	115 Gauge Folded	150 Gauge Folded
3	9.5	Single	-	6,250	4,770	3,750	2,910	2,280	1,750
3	10.5	Single	7,500	-	-	-	-	-	-
6	11	Single	-	6,250	4,770	3,750	2,910	2,280	1,750
6	12.5	Single	7,500	-	-	-	-	-	-
6	14	Double	-	-	9,540	7,500	5,820	4,560	3,500
6	18.75	Quad	-	-	-	-	-	-	-

Typical Properties of Clysar® EV-HPG™ Film (Table 2)

Property	35 Gauge	42 Gauge	55 Gauge	70 Gauge	90 Gauge	115 Gauge	150 Gauge
Haze	2.0	2.0	2.5	2.5	3.0	3.0	3.0
Gloss at 20°	135	135	135	135	130	130	130
COF, Kinetic	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Shrinkage, 102°C (216°F) — 10 min.	45	50	50	50	50	50	50
Shrink Force	75	85	130	145	160	200	240
Stiffness Modulus (avg)	60	60	60	60	55	55	50
Tensile Strength (avg)	15	15	15	15	15	15	15
Elongation (avg)	130	130	145	150	160	160	170
Tear Strength (avg) (Elmendorf)	11	13	20	25	40	45	50
Spencer Impact	6.4	7	10	13	15	19	22
WVTR	2.4	2.1	1.5	1.4	1.0	0.9	0.8
Oxygen Transmission	1000	900	600	500	400	350	300

Note: These values are typical data for EV-HPG $^{\rm m}$ shrink film and are not intended for use as limiting specifications.

Recyclability

Clysar® EV-HPG™ shrink film is approved for the Store Drop-off label by **How2Recycle**®, and has obtained an official letter of prequalification.





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.