



 **FRUTH**
CUSTOM PACKAGING

 **CFB**
CLEANROOM FILM & BAGS

A division of  **Flexible Packaging.**





Fruth Capabilities & Technological Efficiencies

Our extensive lineup of capabilities all leverage the Fruth 360™ process. Our vertically integrated manufacturing process allows us to manage every step of production, from extrusion to conversion to customization, in-house— ensure the highest quality at every stage of production and saving clients time, budget and peace of mind.

Extrusion

Fruth specializes in custom single wound sheeting, centerfold sheeting and tubing plastic extrusion. We produce film from 0.5" to 82" wide and can run 1.5mil (.0015) to 15 mil (.015). Roll length is determined by width, thickness and weight.

We extrude LDPE, LLDPE, medium to high density polyethylene. Additionally, our diverse selection of additives allows us to produce a wide variety of polyethylene with specific protective barriers including:

- Ethylene Vinyl Acetate - EVA
- Ultra Violet Blocking - UVI
- Volatile Corrosion Inhibitors - VCI
- Anti-Static
- Black Conductive
- Green Nuclear
- Mono-extruded nylon film and virgin/barefoot film for cleanroom use.

Conversion

Our state-of-the-art-technology combined with decades of expertise give us the unique ability to engineer, manufacture and convert a wide variety of high-quality LDPE products for our customers. We offer LDPE products in 1-10 MIL thickness and in an extensive range of colors. Our extruded blow film and heat sealable materials can be converted into custom small or large bags. They can also be ordered as standard tubing or sheeting rolls from 1/2" to 82" wide.

Printing

Our state-of-the-art-technology combined with decades of expertise give us the unique ability to engineer, manufacture and convert a wide variety of high-quality LDPE products for our customers. We offer LDPE products in 1-10 MIL thickness and in an extensive range of colors. Our extruded blow film and heat sealable materials can be converted into custom small or large bags.

Reprocessing

Our reprocessing technology allows us to recycle 100% of our high-quality resins and 50-75% on many of our commercial jobs, resulting in a 60% average reduction in materials costs and removing millions of pounds of plastic from the waste stream.

Tooling

Our in-house tooling machine shop provides limitless engineering solutions to the custom demands of intricate packaging products. Not only do these improvements bring new project capabilities, this engineering capability ensures the constant application of lean manufacturing methodology across the manufacturing ecosystem.



Customization

A commitment to customization allows us to deliver packaging our competitors can't.

We will meet your unique business needs from small to large production runs with quick turn-around times. From engineering to quoting to manufacturing to arranging low-cost shipping, and all the steps in between, we treat our customers with the care and attention they deserve while supplying quality-assured manufactured goods at the most affordable prices.



MATERIALS

Poly

LDPE, LLDPE, MDPE & HDPE
Industrial, FDA, or Barefoot
Autoclavable Polypropylene
UV Light Inhibitors (UVI)
Volatile Corrosion Inhibitors (VCI)
Ethylene Vinyl Acetate (EVA)
Extremely Low Outgassing (FELO)
Custom Colors, Tinted & Opaque
Thicknesses of 1.5mil through 10mil

Nylon

Mono-Extruded (Clear / A/S)
Co-Extruded
Biaxially Oriented

Conversion

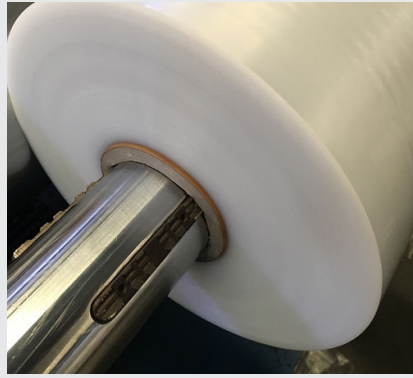
Foam (White / Pink) - 3/32" and less
Bubble (Clear and Anti Stat - 1/8" and less)
Bubble (Cancel - Clear and Anti Stat)
Foil Bubble (Thermal Protection)
Multi-Layer Pouches
Biohazard

Static Control

Pink & Clear Anti Static Poly
Black Conductive
Static Shielding
EMI Static Shielding

Reprocessing

MVTR and Oxygen Barrier
Protective Packaging
Mil Spec
Vacuum Pack



AVAILABLE CONSTRUCTIONS

Bags

Flat
Side and Bottom Gusset
Zipper
Lip and Tape
On wickets
Multi Pockets and Compartments
Vista (1 side clear / 1 side colored)
Square Bottom Covers and Liners

Roll Stock

Tubing
Gusseted Tubing
Single Wound Sheeting
Centerfold Sheeting
J-Fold Sheeting
Perforated on Bags on Rolls



IN-HOUSE PRINTING

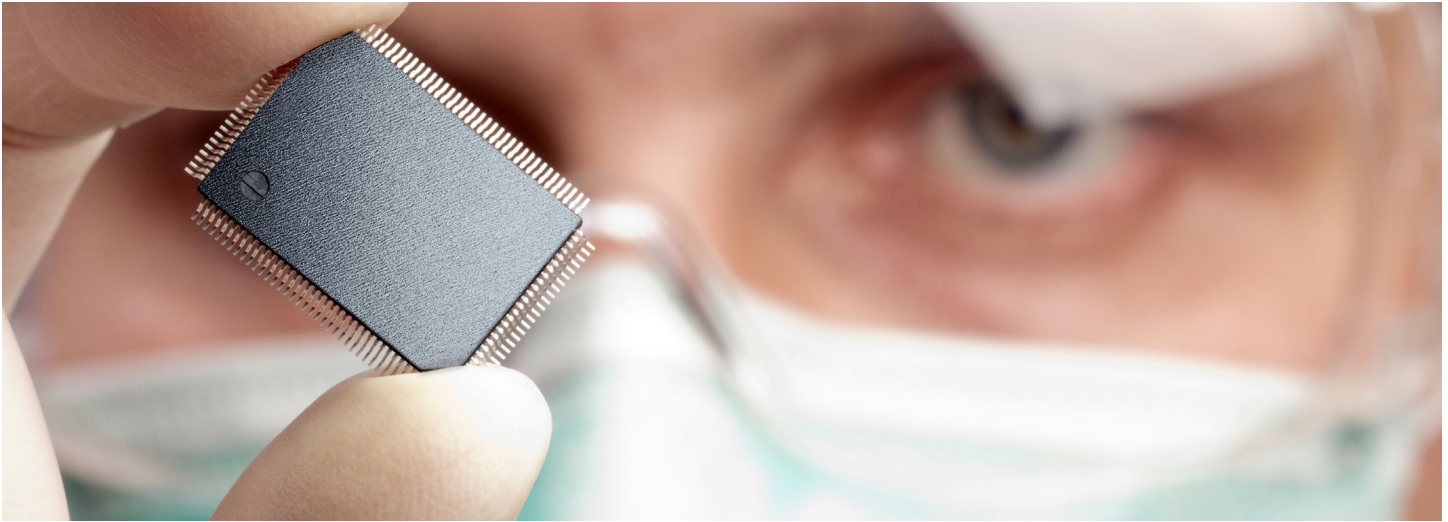
4 Colors / 1 Side
Custom Color Matching
2mil through 8mil Films
Writable White Ink Blocks
Low MoQ's of 5,000
Sized from 3" up to 32"

CLEANROOM LEVEL 100

Fruth Custom Packaging is an innovative leader in cleanroom packaging technology, providing the ultimate cleanroom products while meeting the most stringent industry requirements.

ISO Class 5 Cleanroom
IEST Standards STD 1246E
Polyethylene, Nylon, & Aclar
Bags, Tubing, & Sheeting





CFB CAPABILITIES



People

Our combined 120 years of blown film manufacturing experience guarantees superior & consistent quality.



Process

All cleanroom poly film and bags are manufactured within a controlled cleanroom environment in order to maintain a superior level of cleanliness. The process takes raw materials from the virgin raw state to a finished, vacuum sealed product without leaving the cleanroom environment.



Competencies

- Cleanroom Packaging, both roll-stock and finished cleanroom bags, can be supplied in widths ranging from 2" to 80" lay flat (gusseting may be required).
- Cleanroom Bag lengths are available from 1" long to any required length.
- Roll-Stock is supplied in 500 ft lengths, unless otherwise specified or requested. Custom Hole Punching and Perforations available.
- "Bags-on-a-roll" can be created in custom sizes and used with or without an Auto Bag machine.



Cleanliness

Specially blended materials and a specially designed manufacturing process allows Cleanroom Film & Bags to provide products meeting or exceeding the requirements of Cleanliness Level 50 per IEST-STD-CC 1246 (formerly MIL-STD-1246) and NASA JPR 5322.1 (formerly NASA JPG 5322.1), KSC-C-123.



Private Labeling

Custom private labeling options are available, including, barcode options for vertical integration into your ERP system.



Certifications

Cleanroom Film and Bags is ISO 9001:2015 compliant.



Commitment

Cleanroom Film & Bags is dedicated to continuous improvement by striving to exceed customer expectations by providing cost effective packaging solutions, value-added services, and on-time delivery of quality products in compliance with customer requirements.

MATERIALS

Proprietary Resins

In cooperation with our resin suppliers, we have developed a proprietary blend of “Barefoot” materials that allows the finished product to open easily without the addition of any anti-block. This not only allows the product to open easily, but also creates a non-scratching material that will not mar or leave any residue on critical finished products.

CFB1000 SERIES:

Pure Barefoot Low Density Polyethylene

A strong general use clean packaging film specifically designed for use in clean applications. While it has a good cleanliness level, it can be slightly difficult to open. This is one of the more cost-effective cleanroom packaging films available.

CFB1004 SERIES:

Black UVI

CFB1004 products are formulated with protection from both ultra-violet degradation and penetration. The black opaque color also hides valuable products from prying eyes to help keep your light-sensitive products and equipment secure when used as a pallet cover.

CFB1600 SERIES:

Square Bottom Covers

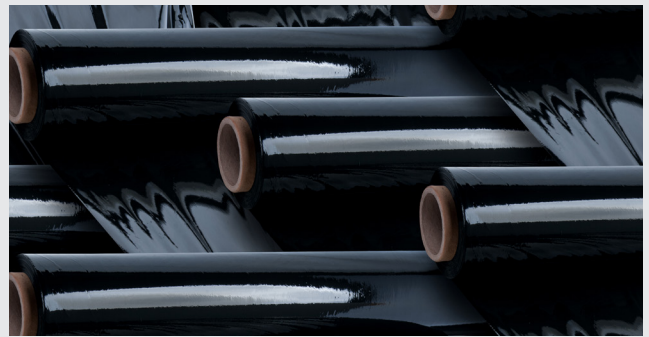
Square Bottom Covers are made with the same virgin-grade materials as our cleanroom films and are tested to ensure they meet the requirements of an ISO 14644 Class 5 (FED STD 209E-Class 100) cleanroom environment. Covers can be made from any of our polyethylene grades including LDPE, CleanTuff®, ULO, anti-static poly (both clear and pink), UVI (black, white, or clear).



CFB2500 ULO SERIES:

Ultra Low Outgassing Poly Film

This product was engineered specifically for critical products that require packaging in a film that combines low ionic contamination and ultra-low outgassing. ULO Poly packaging film has excellent handling characteristics and an extremely clean surface. With a higher gas barrier than standard low-density poly, ULO Poly is an excellent choice for vacuum packaging applications.



CFB3000 SERIES:

Medium Density Polyethylene

Specifically designed for use in applications where cleanliness levels exceeding IEST-CC-STD 1246D level 100 are necessary. It contains no additives such as slip, anti-block or antioxidants and exhibits excellent characteristics in the areas of Ionic Contamination, Outgassing, Non-Volatile Residue and Cleanliness. Available in custom colors.

CFB4000 SERIES:

High Density Polyethylene

Used for vacuum packaging applications that require superior cleanliness levels due to the intimate contact of contamination sensitive components. Having a cloudy appearance, this material exhibits superior strength, greater puncture resistance, low non-volatile residue, low outgassing and ease of opening.

CFB5000 SERIES:

Nylon Clear Film

A product that can be cleaned to the most stringent specifications, due to its hard surface. It is a strong, abrasion resistant film that is used in a variety of clean applications. Nylon is an unplasticized, FDA approved food-grade clear film. Additionally, it is very low in ionic contamination and non-volatile residue.

CFB5001 SERIES:

Orange Anti-Stat Nylon Film

A product that can be cleaned to the most stringent specifications, due to its hard surface. It is a strong, abrasion resistant film that is used in a variety of clean applications. Nylon is an unplasticized, Very low in ionic contamination and non-volatile residue. Suitable for aerospace applications.

CFB5500 COMPOS-A-CLEAN: Biaxially Oriented Nylon/Polyethylene

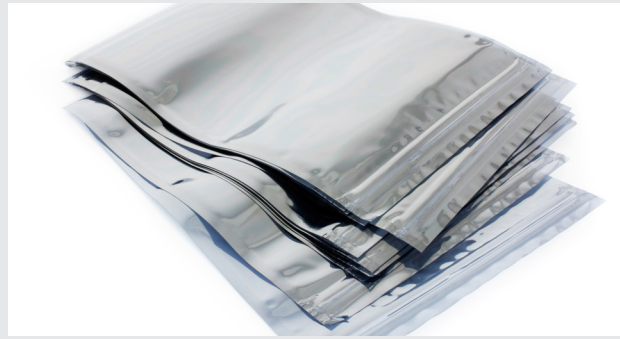
A dual layer high clarity film designed to provide protection for those products having a high degree of sensitivity to moisture. Having an extended shelf life, a very low Moisture Vapor Transmission Rate as well as an equally low Oxygen Transmission Rate, CFB5500 will meet all of your critical packaging needs. Biax is a very strong and clear material designed for tough applications. It is typically specified for large bags that must carry a heavy load. The film does not stretch due to the orientation of the layers during the laminating process.



CFB6500 SERIES:

Static Shield

Semi-transparent, electro-static, buried metal, heat-sealable, flexible structure offering excellent electrostatic shielding properties.



CFB7000 SERIES:

Hydroblock® PCTFE

Hydroblock® is a copolymer film consisting primarily of chlorotrifluoroethylene. It has excellent moisture barrier and chemical resistance as well as low oxygen permeability. It is ideal for packaging all types of corrosion sensitive military and industrial electronic parts. Hydroblock® is also recommended for use in oxygen rich environments or for packaging products used in liquid oxygen or hypergolic systems as it meets the NASA LOX Impact compatibility requirements under MSFC106A, and the flammability requirements of MIL B22191 Type I and MIL B131 Type II.

CFB9600 SERIES:

Anti-static Cleanroom Films

This product is manufactured from our proprietary resin blends, except with the permanent anti-stat properties as required. This in-house extrusion process and control of 100% virgin resins makes this anti-static film an excellent choice for your Cleanroom packaging. Available in the "Pink Poly" industry standard for anti-stat, and also available in custom colors including blue, green, yellow, as well as clear.

CT100 CLEANTUFF® LDPE Film

A specially-designed resin blend for added strength and higher elasticity. CT100-Cleantuff also displays the characteristics of a non-mar, non-scratch material and is available in custom colors.

CT200 CLEANTUFF®

HDPE Film

A specially designed HDPE resin for added strength over standard cleanroom packaging. CT200 also displays the characteristics of a non-mar, non-scratch material. Available in custom colors.

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