











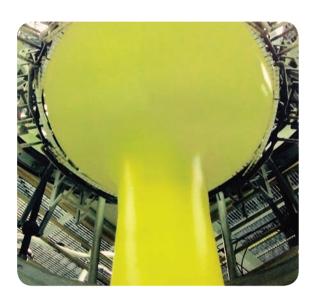
Product Catalog

Packaging Choice and Sustainability

Brand Profile



A Hilex Poly® bag can enhance your brand statement to it's fullest potential. Hilex® provides all the support you need during the packaging development, all the way through production and consumer use. You can rely on Hilex Poly® for industry leading expertise and quality production capabilities to ensure your brand's creative design is well represented in your packaging.





The Hilex Poly® Brand Advantage

Novolex's Hilex Poly® brand is the industry's leading manufacturer of plastic retail bags, produce bags and other customer focused systems. Hilex Poly® is home to **Bag-2-Bag®**, the United State's largest closed loop recycling program where plastic retail bags are turned back into resin pellets and then back into new retail bags made with post-consumer content; reducing a consumers' shopping carbon footprint and preserving natural resources.

Our Mission

Hilex's mission is to be the preeminent manufacturer of plastic bags through uncompromising quality, innovative solutions, customer service and satisfaction, while valuing our employees and vendors with constant attention to our impact on the environment.

Sustainability



A continuous journey of improvement

Novolex is a leader in sustainable paper and plastic flexible packaging with a broad portfolio of solutions focused on source reduction, energy and water conservation, and end of life product planning and management.

Some of the Novolex[™] sustainability solutions we bring to our customers include: recycled content plastic and paper products, compostable plastic and paper products, renewable substrates, Novolex's Bag-2-Bag® plastic bag and film recycling program, lower impact substrates such as our EcoCraft® and Dubl Life® lines, and other industry leading innovations that minimize raw materials while maximizing performance.

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T-Shirt Bags





QuikMate EZ®

The standard in bagging – from the leader in bagging solutions

QuikMate EZ™ T-Shirt Bags Features:

- Engineered convenient t-shirt bag style with integrated tabs
- Bag sizes to fit any purchase requirements
- Patented easy-open design
- Dispensing systems, including racks, trays and compact dispensers for maximizing productivity
- Hardware to fit almost any check stand configuration
- Custom printing provides branding opportunity
- Jumbo T-Shirt Bags are also available



Item#	Description	Size	Gauge (Micron)	Bag Per Case	Case Cube	Cases Per Pallet	TiHi	Min. Order
8553004	Mini	7 x 4 x 16	10	2,000	0.244	96	16 x 6	6 Pallets
8108002	Junior	9 x 5.5 x 18	12	2,000	0.548	60	20 x 3	6 Pallets
8023997	1/7	12 x 7 x 20	13	1,000 or 2,000	0.467	60	12 x 5	6 Pallets
1003426	1/6	12 x 7 x 22	13	1,000 or 2,000	0.467	60	12 x 5	6 Pallets
1009933	Supersize	13 x 8 x 23	15	1,000	0.687	60	12 x 5	6 Pallets

Premium T-Shirt Bags

Ultra-Prime

Premium T-Shirt Bags

Ultra-Prime™ Features:

- Made from prime grade materials, optimized for strength, aesthetics, and performance minimizes the risk of spillage during packaging and transport
- Patented EZ Self-Opening bag and rack system allows for convenient and easy packing of your take out containers and other larger items
- Heavier gauge, increased opacity, and superior toughness

Custom sizes and colors available in truckload quantities

ASE RETURN TO A PARTICIPATING STORE FOR RECYCLING





lte	em #	Bag Size	Volume Capacity	Gauge	Film Color	Print	Film Type	Case Pack	Net Poly Lbs./Case	TiHi	Min. Order
102	6175	11.5 x 7.5 x 21	15.6 liters	15	White	Thank You	HDPE	1500	21.9	12 x 4	4 Pallets
102	7401	11.5 x 7.5 x 21	15.6 liters	15	White	Thank You	COEX	1500	21.9	12 x 4	4 Pallets
102	7403	13 x 8 x 22	20.0 liters	17	White	Thank You	HDPE	1320	25.8	12 x 4	4 Pallets
102	6304	13 x 8 x 22	20.0 liters	17	White	Thank You	COEX	1320	25.8	12 x 4	4 Pallets

Superior Strength in Various Sizes & Gauges

Our Hilex Poly® Brand sales and customer service team is focused on helping you select the right bag for your shoppers. As an innovator, we lead the industry in providing quality choices tailored to meet your specific application. Simply choose the size and film type, and we will provide you a carryout bag system that is perfect for your store, maximizes value, and improves front-end productivity. Top quality and superior strength mean more items per bag and shopper loyalty, a win-win value proposition.

Ultra-Prime™ Premium T-Shirt Bags from NOVOLEX™ are available in a number of stock sizes to streamline the ordering process and reduce lead times.

Ultra-Prime™Reusable

2.25 mil Reusable Plastic Bags

Ultra-Prime™ Reusable Features:

- Tough reusable bag that is an environmentally preferred reusable bag
- Designed to fit on standard front-end racks for easy loading
- 2.25 mil thick to meet most legislative guidelines for reusable bags
- Made from 100% recyclable LDPE resin
- Extra Durable, Made With Pride in the USA
- Custom colors, sizes and print available in truckload quantities
- Meets EcoLogo ATP 001 standard



		Volume	MIL/	Film			Case	Net Poly		Min.
Item #	Bag Size	Capacity	Micron	Color	Print	Film Type	Pack	Lbs./Case	TiHi	Order
1026261	12 x 8 x 22	18.9 liters	2.25 / 57	White	Thank You	LDPE	400	24.4	12 x 4	1 Pallet
1028338	11.5 x 6.5 x 21	15.7 liters	2.25 / 57	White	Thank You	LDPE	400	20.9	12 x 4	1 Pallet



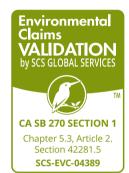
Ultra-Post Reusable T-Shirt Bags

Ultra-Post™ Reusable T-Shirt Bags

2.25 mil - minimum 20% post-consumer certified recycled content

Legislative Requirement to meet the EcoLogo ATP-001 Standard

- Has a minimum lifetime of 125 uses which, for purposes of this definition, means the capacity
 of carrying a minimum of 22 pounds 125 times over a distance of at least 175 ft.
- Has a minimum volume of 15 liters
- Is made from a material that can be cleaned or disinfected
- Does not contain lead, cadmium, or any other heavy metal in toxic amounts
- Has printing on the bag, or on a tag that is permanently affixed to the bag, the name of the
 manufacturer, the country where the bag was manufactured, a statement that the bag does not
 contain lead, cadmium, or any other heavy metal in toxic amounts, and the percentage
 of the post-consumer recycled material used, if any
- If made of plastic, is a minimum of at least 2.25 mils thick





		Volume					Case	Net Poly		
ltem#	Bag Size	Capacity	Mil/Micron	Film Color	Print	Film Type	Pack	Lbs/Case	Ti-Hi	Min. Order
1028278	11.5 x 6.5 x 21	15.7L	2.25 / 57	White	Thank You	LDPE	400	20.9	12 x 4	4 Pallets
1028321	11.5 x 6.5 x 21	15.7L	2.25 / 57	Light Gray	Thank You	LDPE	400	20.9	12 x 4	4 Pallets
1029471	11.5 x 6.5 x 21	15.7L	2.25 / 57	White	Thank You	MDPE	400	20.9	12 x 4	4 Pallets
1028323	11.5 x 6.5 x 21	15.7L	2.25 / 57	Light Gray	Thank You	MDPE	400	20.9	12 x 4	4 Pallets
1028648	11.5 x 6.5 x 21	15.7L	2.25 / 57	White	Reuse - Hex	LDPE	400	20.9	12 x 4	4 Pallets
1028649	11.5 x 6.5 x 21	15.7L	2.25 / 57	Light Gray	Reuse - Hex	LDPE	400	20.9	12 x 4	4 Pallets

1028322 available in 1 color green print

For more information on our Bag-2-Bag® Program, visit:



Ultra-Post Reusable T-Shirt Bags

Ultra-Post™ Reusable Features

- Tough reusable bag that is an environmentally preferred reusable bag
- Minimum 2.25 mil thick to meet most legislative requirements for reusable bags
- Made from a minimum of 20% post-consumer recycled third party certified material
- Made with pride in the USA from 100% recyclable LDPE or MDPE resin
- Tough reusable bag is designed to fit on standard front-end racks for easy loading
- Meets EcoLogo ATP-001 standard for legislative areas (see below for more information)
- Custom print and size available in truckload quantities, contact your Novolex rep for details
- Due to recycled content, there may be slight variations in color





Produce Bagging Systems



RollStar™

Produce Bag System

RollStar™ Produce Bag Features:

- Innovative NEW dispenser guarantees one-bag-at-a-time, EVERY TIME, right down to the last bag on the roll.
- Compact, narrow footprint integrates easily into your merchandising scheme
- Multiple bag sizes and films match the bag to the produce (standard, organic, greens, corn/yam)
- Star seal bottom creates the strongest seal in the industry.
- Unique design holds large or small rolls securely, eliminating residual roll waste common with other narrow roll systems.
- Specially formulated bags are easy to open and easy to load, eliminating shopper frustration.
- Custom or stock prints available.

RollStar[®] Fixture Kits

We have a fixture to meet your produce, meat and seafood needs!



Floor Stands

- STD 46" Floorstand Kit (#777-4155)
- 36" ADA Floorstand Kit (#777-4161)



Orchard Bins

- 12" Cantilever Kit (#777-4134)
- 12" Partition Kit (#777-4136)



Wet Cases

- Standard Wet Case Kit (#777-4133)
- Wet Case D5 Well Kit (#777-4135)



Banana Tables

 20" Banana Table Kit (#777-4151)



Meat Bunkers

Meat Bunker Kit (#777-4142)



Twist Ties

 TwistEase w/Universal Bracket (#777-4160)



Euro Table & Slants

• Euro Case Slant Base Kit (#777-4152)



Small Roll

Small Roll Dispenser (#777-4196)

Produce Bags





Available in standard or custom printing



RollStar™ Delivers

New, innovative dispenser delivers one-bag-at-a-time, every time, from the first bag to the last.

The RollStar $^{\text{\tiny{TM}}}$ star seal bag-on-a-roll solution from NOVOLEX $^{\text{\tiny{TM}}}$ makes it easy for both you and your shoppers to focus on the produce not the bagging system.



		Layflat			Folded								Cases
		Width	Length	Gauge	Width		Print Design / Ink	Bags per	Bags per	Net Poly	Weight	Case	per
Item #	Description	(in)	(in)	(micron)	(in)	Film Color	Color	Roll	Case	Case Wt.	per Case	Cube	Pallet
1019159	Medium Produce	14	18	6	3.75	Natural	More Matters	1000	4000	16.35	17.6	0.95	60
1027759	Medium Produce	14	18	8	3.75	Natural	More Matters	750	3000	16.35	17.6	0.95	60
1018878	Standard Produce	12	20	8	3.25	Natural	More Matters	750	3000	15.57	16.0	0.48	75
1019160	Large Produce	15	20	6	4.00	Natural	More Matters	1000	4000	19.47	20.0	0.63	60
1028535	Small Roll	15	20	6	4.00	Natural	Plain	100	3000	16.35	17.6	0.63	60
1018547	Large Produce, Medium	15	20	8	4.00	Natural	More Matters	750	3000	19.47	20.0	0.59	60
1028752	Organic	15	20	8	4.00	Yellow Tint	Organic	750	3000	19.47	20.0	0.59	60
1018880	Large Produce, Heavy	15	20	10	4.00	Natural	More Matters	600	2400	19.47	20.0	0.59	60
1018881	Safe Handling (Meat Bag)	15	20	10	4.00	Natural	Safe Handling	600	2400	19.47	20.0	0.59	60
1018882	Bakery	15	20	10	4.00	Natural	Bakery	600	2400	19.47	20.0	0.59	60
1018883	Leafy Greens	16	26	8	4.25	Natural	More Matters	575	2300	20.70	21.5	0.62	60
1018884	Corn & Yams	16	26	15	4.25	Yellow Tint	More Matters	300	1200	20.25	21.0	0.62	60

Produce Bags



$\mathbf{QuikStar}^{\mathsf{m}}$

Self-Opening Star Seal Header Bag

QuikStar™ Produce Bags Features:

- Variety of dispensing options: on partitions, wet case walls or floor stands
- Patented EZ self-opening bags provide one-at-a-time pinch & pull dispensing to eliminate bag waste and shopper frustration
- Multiple bag sizes and films match the bag to the produce (standard, organic, greens, corn/yams)
- Anytime restocking so dispensers never run out, shoppers are never empty handed
- Integral tab, headerless design leaves nothing behind on the rack or in your department
- Star seal bottom creates the strongest seal in the industry
- Stock or custom prints to promote your brand

Single Bag Well Dispenser

Produce Bags

QuikStar™ Dispensing Options



Spring Wire Hook 777-3434



Compact Dispenser 777-3550



Single Bag Well Dispenser 777-3489

For assistance selecting the dispensing system that is right for your department contact NOVOLEX Today.

Item #	Description	Layflat Width	Folded Width	Length	Gauge	Film Color	Print	Bags/ Case	Bags/ Hand	Hands/ case	Wt. Case	Cube	Pallet	MOQ
1003805	Standard Produce	12	3.25	16	8	Natural	5 A Day	4020	67	60	17.1	0.67	60	1 pallet
1003796	Large Produce	12	3.25	20	8	Natural	5 to 10 A Day	4020	67	60	21.7	0.72	45	1 pallet
1003778	Ex-Large Produce	15	4	20	8	Natural	5 A Day	4020	67	60	26.0	0.96	40	1 pallet
1024239	Organic	15	4	20	8	Green Tint	Organic	4020	67	60	26.0	0.96	40	1 pallet
1006387	Safe Handline (Meat Dept.)	15	4	20	8	Natural	Safe Handling	3000	50	60	24.0	0.96	40	1 pallet
1003779	Leafy Greens	15	4.25	24	10	Green Tint	LEAFY GREENS	3000	50	60	31.0	0.67	36	1 pallet
1003754	Corn & Yams	15	4.25	24	15	Yellow Tint	Corn & Yams	2000	40	50	31.0	0.67	36	1 pallet

Convenience Store Bagging Systems

RollMate® Bagging System

When your goal is great customer service, the last place that you want clutter is at the checkout line

RollMate® Bagging Solution Features:

- Compact dispensers reduce space requirements by up to 80% compared to conventional bags and systems
- Space-saving roll dispensers to mix and match bag sizes
- Up to 500 bags per roll so there's less restocking
- Multiple hardware kits allow under the counter or end of counter installation, eliminating checkout clutter
- Custom printing provides branding opportunity (Stock designs also available)
- Jumbo Size also available, (22 x 10 x 38)



Space-Saving Hardware Dispenser to be installed under the





The RollMate® bagging system adds to checkout convenience with one ata-time bag dispensing. The employee simply pinches the top of the bag and pulls. The bag detaches from the roll and is ready to fill with merchandise.

You can mix and match bag sizes and dispensers. With up to 500 bags per roll, employees spend less time restocking and more time serving customers.

				Film			Case Wt.	Case	Cases/		Min.
Item #	Description	Bag Size	Micron	Color	Print	Bag/Case	Lbs.	Cube	Pallet	TiHi	Order
1006378	Medium	9.5 x 6 x 18	10	White	Happy Face	2000 / 4 rolls	14	0.683	48	16 @ 3	1 Pallet
1006379	Large	11 x 6.5 x 22	12	White	Happy Face	1600 / 4 rolls	19	0.810	48	16 @ 3	1 Pallet
8035017	Large	11 x 6.5 x 22	12	White	Plain w/Warning	1600 / 4 rolls	19	0.810	48	16 @ 3	1 Pallet
8107027	Large Plus	15 x 8 x 26.5	12	White	Thank You	1500 / 4 rolls	29	1.193	36	12 @ 3	1 Pallet
8609034	X-Large	18 x 8 x 34	14	White	Thank You	1000 / 4 rolls	32	1.400	32	16 @ 2	1 Pallet

CheckMate® Bagging System

Expedite cashwrap transactions using the complete dispensing system

Display Solutions Features:

- Provides one-at-a-time bag dispensing
- Under the counter installation option
- Units can be stacked or mounted side by side
- Bags packed in light weight pouch
- User friendly dispenser units
- Strong integral tab feature
- Bag self opens upon removal





Item#	Description	Bag Size	Micron	Print	Bags/Case	Case Cube	Cases/Pallet	TiHi	Min. Order
1018061	Small	9 x 6 x 18.75	12	Thank You	1000 (5 sleeves of 200)	0.382	96	12 x 8	1 Pallet
1018140	Large	12 x 7 x 21	14	Thank You	1000 (5 sleeves of 200)	0.594	63	21 x 8	1 Pallet

Header Bagging System

The header bag that sets the standard for versatility

Bagging System Features:

- One at a time dispensing reduces waste and clutter
- Versatile hardware is easy to install wherever bags are needed
- Convenient placement within easy reach of customers
- Bag is available with or without side gusset
- Multiple bag size options
- Optional handles for easier carrying



Specialty Products

Ice Bags

The Durable, Convenient, and Cost Effective Ice Bag System

Ice Bags Features:

- Drawstring design
- Flat packs
- Plastic wickets
- Wire wickets
- Sizes ranging from 3lb to 50lb bags
- Custom and stock prints available



Custom printing available.







Item#	Ice Capacity	Style	Size	Gauge	Case Pack	Cases/ Pallet	Ti/Hi	Min. Order
1015766	8 Lb Ice Bag	Flat/Loose	11 x 19	1.15 mil	1000	48	12 x 4	1 Pallet
1015767	8 Lb Ice Bag	Wire Wicket	11 x 19 + 1.5 Lip	1.15 mil	1000	48	12 x 4	1 Pallet
1015768	8 Lb Ice Bag	Drawstring	11 x 19	1.5 mil	500	48	12 x 4	1 Pallet
1016934	8 Lb Ice Bag	Plastic Wicket	11 x 19 + 4BG, 1.5 Lip	1.25 mil	1000	48	12 x 4	1 Pallet
1015869	10 Lb Ice Bag	Flat/Loose	12 x 19	1.15 mil	1000	48	12 x 4	1 Pallet
1015770	10 Lb Ice Bag	Wire Wicket	12 x 19 + 1.5 Lip	1.15 mil	1000	48	12 x 4	1 Pallet
1015771	10 Lb Ice Bag	Drawstring	12 x 19	1.5 mil	500	48	12 x 4	1 Pallet
1028258	10 Lb Ice Bag	Plastic Wicket	12 x 19 + 4BG, 1.5 Lip	1.25 mil	1000	48	12 x 4	1 Pallet
1016937	20 Lb Ice Bag	Wire Wicket	14 x 28, 1.5 Lip	1.75 mil	500	48	12 x 4	1 Pallet
1028260	20 Lb Ice Bag	Plastic Wicket	14 x 26 + 4BG, 1.75 Lip	1.75 mil	500	48	6 x 7	1 Pallet
1016939	20 Lb Ice Bag	Drawstring	14 x 26	2.0 mil	250	48	6 x 7	1 Pallet



Specialty Products



TrunkLiners

Large Plastic Sheets Dispensed from a Roll

TrunkLiner Features:

- Large plastic sheets to protect vehicle floors and trunks
- Individual liner sheets easily dispense from a perforated roll

Item#	Description	Liner Size	Roll Size	Gauge (Micron)	Film Color	Liners Per Roll	Rolls Per Case	Liners Per Case	Min. Order
1005056	Trunkliners	38 x 52	6 Dia x 18 Long	18	Buff	210	4	840	1 Pallet

Specialty Plastic Bags

Wave Top

Specialty Plastic Bags

Wave Top Bag Features:

- Wide opening for easy loading
- Flat bottom gusset keeps items secure and allows bag to stand on its own
- Multiple film colors available
- Available in multiple sizes with expandable gussets for larger items
- Integrated handles for ease in carrying
- Custom printing available





Standard Wave Top Bag Specifications

Bag Size	Gauge	Case Pack	Net Case Weight
18 x 16 + 9 BG	1.2 Mil	500	12.66
19 x 18 x + 9 BG	1.2 Mil	500	18.16
21 x 18 + 10 BG	1.5 Mil	500	20.64
24 x 20 + 11 BG	1.75 Mil	250	16.37

Soft Loop Handle

The Premium Retail or Foodservice Bag

Soft Loop Handle Bag Features:

- Heavy gauge HDPE or LDPE body
- Soft Loop LDPE handle
- Bottom or side gusset
- Flat bottom keeps items from tipping or leaking
- Integrated soft loop handle for ease in carrying
- Available in a variety of sizes and film colors
- Custom printing available









Standard Soft Loop Handle Bag Specifications

Bag Size	Gauge	Case Pack	Net Case Weight
18 x 12 + 9 BG + 3 Hem	1.8 Mil	500	24.6
21 x 13 + 10 BG	2 Mil	500	28.86
24 x 14 + 11 BG	2 Mil	250	17.52

Pink Bag Program

Show Your Support

Show your support during Breast Cancer Awareness Month with our PINK products. Novolex is pleased to offer you this unique way to show your support. Please spread the message by using these products.

novolex.com/products/pinkbagprogram









Scan QR code for more information about our Pink Bag Program

Specialty Plastic Bags – Pink Bag Program

Product Features

- Made from prime grade materials, optimized for strength, aesthetics, and performance
- T-Shirt Bag has a patented EZ Self-Opening bag and fits on standard rack system for convenient and easy packing
- Wave Top Bag has a 2.75" Integrated Handle/Folded Front for Easy Open and is the perfect size for retail or foodservice items Easily fits 2-3 9 x 9 Square, Round or Octagon Container
- Soft Loop Handle Bag has an integrated LDPE handle for ease in carrying and a bottom gusset that keeps items from tipping over or leaking











Soft Loop Handle Bag

Item#	Description	Dimensions	Gauge	Substrate	# Colors	Print	Minimum Order	
1027453	T-Shirt Bag - Stock Print	11.5 x 7.5 x 21	15 Micron	HD Film (Pink)	1+1	Stock - Pink Bag Promo	4 Pallet (240M Bags)	
custom	T-Shirt Bag - Custom	Customer Spec	15 Micron +	HD Film (Pink)	2+0 or 1+1	Custom	8 Pallet (480M Bags)	
custom	T-Shirt Bag - Custom	Customer Spec	15 Micron +	HD Film (Pink)	2+0 or 1+1	Custom	Truckload	
1029464	Wave Top Bag	20 x 22 + 8BG	1.5 Mil	Pink LDPE	1+1	Stock - Pink Bag Promo	100M Bags	
1028823	Soft Loop Handle Bag	18x18x6BG+3Hem	1.8 Mil	White LDPE	1	Stock - Pink Bag Promo	100M Bags	

Specialty Plastic Bags



Die Cut Merchandise

Specialty Plastic Bags

Die Cut Merchandise Bag Features:

- Wide opening for easy loading
- Die Cut handle for ease in carrying
- High density and low density film available in multiple colors
- Available in both side or bottom gussets
- Available in multiple sizes with expandable gussets for larger items
- Custom printing available

Choose Tab Style:







Choose Handle Style:



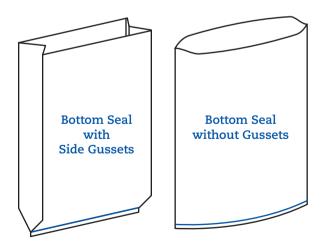




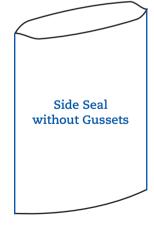
1" x 3" Racetrack Handle

2" Round Hole Handle

Choose Seal:



Side Seal with Bottom Gusset



Bottom Seal Features:

- Can be made with or without side gusset
- Can be made with or without block header
- Available in HDPE or COEX Film
- Available in multiple sizes
- Custom printing available

Side Seal Features:

- Come with a variety of options –
 with / without: gusset, hemmed top, handle
- Available in LDPE, HDPE or COEX Film
- Available in multiple sizes
- Custom printing available

Bag-2-Bag® Recycling Program

Bag-2-Bag®: Closing the Loop on Plastic Bags, Our Exceptional Story

NOVOLEX wants to better utilize our natural resources and protect our environment. Bag-2-Bag® can help reduce waste through innovative recycling. Bag-2-Bag® is the Nation's first closed loop recycling program where consumer can bring plastic retail bags and other wraps and films back to their local store to be recycled and made in to new bags.

When you take your bags back, they'll be going to our state-of-the-art recycling plant where they are turned into clean new bags which can be recycled again and again.

Watch the following "Today In America" feature showing how we recycle old bags and film into new bags at our NOVOLEX Hilex Poly® recycling center in North Vernon, IN.

Our Program Is Called Bag-2-Bag® and Here's How It Works

Plastic bags are collected at grocery stores and other retailers across the country. Collected bags are gathered into bales and transported to the NOVOLEX recycling center in North Vernon, IN. Our recycling cenwter washes and processes the used bags into pellets. The recycled pellets are then used to manufacture brand new plastic bags.



Learn More

Visit our Bag-2-Bag website to learn more about this program by scanning this QR code or by visiting: novolex.com/sustainability/bag-2-bag

Bag-2-Bag® Recycling Program



Watch Video

Scan this QR code to watch a short video on what can be recycled or visit: novolex.com/sustainability/bag-2-bag

Bag-2-Bag® Recyclables:

- Plastic retail bags
- Produce bags
- News Paper Bags
- Dry Cleaning Bags
- Cereal Box liners
- Paper towel and toilet paper over wrap
- Over wrap on cases of soda or canned vegetables
- Sealed air pouches in mailed packages
- Ziploc and other zipper style bags please remove zippers prior to recycling

DO NOT Recycle These In Bag-2-Bag®:

- Salad and pre-prepared vegetable bags
- Frozen vegetable bags
- Pet food bags
- PVC or PVDC (Saran) films (meat wrap is PVC)
- Polystyrene, polyurethane foamed, polypropylene
- PETE trays
- Plastic bottles
- Hazardous materials, medical wastes, or packages of these products
- Metal

Bag-2-Bag® Recycling Program





Bag-2-Bag® Recycling Plant

United States Largest Closed-Loop Plastic Bag Recycling Plant

Not too long ago some people didn't know what to do with used plastic bags and wraps, so they might have thrown them away. But over the past 10 years the best solution for used bags and wraps has become to recycle them into new bags, and led to growth in plastics recycling facilities like the NOVOLEX Bag-2-Bag® recycling facility.

NOVOLEX established North America's only closed-loop recycling program for plastic bags and wraps to be a part of this entrepreneurial movement. Bag-2-Bag® recycling allows us to partner with consumers, supermarkets, retailers and restaurants in a way that benefits them all – and creates a cleaner, safer world.

How does it work?

Stores encourage customers to bring in used plastic bags and wraps from any source and place them in the collection bins. Hilex Poly® picks up the collected bags and ships them to our state-of-the-art recycling plant in North Vernon, Indiana, where the bags are washed and made into new bags.

Recycling Old Bags In To New Bags

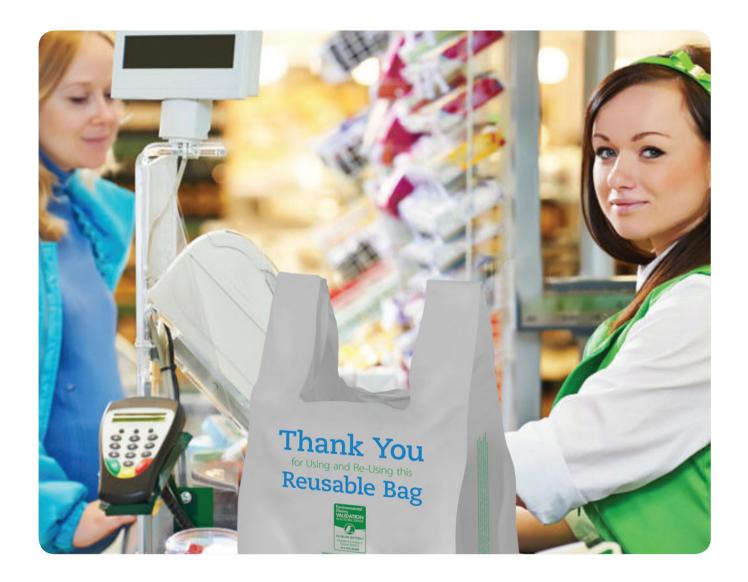
Not only does Hilex Poly® recycle plastic bags, we also recycle wraps and films. But recycling is a two part process that requires manufacturers to use recovered materials in new products.

True Cradle To Cradle Lifecycle and Process

Did you know that recycling plastic bags and wraps is very cost efficient. Actually it is one of the more cost effective recycling systems when store take back programs like Bag-2-Bag are used. A bag made with recycled content not only maintains excellent strength characteristics, but its cost is similar to a bag made with new plastic.



EcoLogo ATP-001 Certified Bags



Legislative Requirement to meet the EcoLogo ATP-001 Standard

- Has a minimum lifetime of 125 uses which, for purposes of this definition, means the capacity of carrying
 a minimum of 22 pounds 125 times over a distance of at least 175 ft.
- Has a minimum volume of 15 liters
- Is made from a material that can be cleaned or disinfected
- Does not contain lead, cadmium, or any other heavy metal in toxic amounts
- Has printing on the bag, or on a tag that is permanently affixed to the bag, the name of the manufacturer, the country where the bag was manufactured, a statement that the bag does not contain lead, cadmium, or any other heavy metal in toxic amounts, and the percentage of the post-consumer recycled material used, if any
- If made of plastic, is a minimum of at least 2.25 mils thick

EcoLogo ATP-001 Certified Bags









Gray Is the New Green and How2Recycle Label

Gray Is the New Green

NOVOLEX™ Hilex Poly® brand Gray is the New Green Bags Make a Powerful Statement About the Environment with Recycled Content

Did you know that most plastic shopping bags made from virgin (or first use) plastic are typically white in color? In contrast, plastic shopping bags made partially or totally from recycled resin recovered from used bags are gray, buff or blue. Actually higher recycled content is symbolized by darker colors. These darker colored bags are more environmentally friendly or "green" because they can be made from recycled plastic bags, a good use for old bags that keeps them out of landfills.

How much recycled content can go into a bag?

NOVOLEX[™] can put a high amount of recycled content into a bag.. In 2014 we averaged over 30% recycled content in our plastic retail bags with many bags having 50% or greater content. As we have helped to grow plastic bag and film recycling across the country we have increased our average level per bag in each of the past 8 years.

NOVOLEX™ makes it easy to "go green"... or as we say... "go gray." All of our bags are recyclable. Our environmentally friendly plastic bags have a printed message on the bag that lets consumers know it's a green solution.

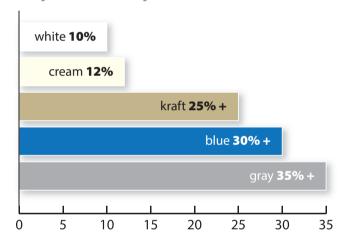
Learn more about the people at NOVOLEX™ Hilex Poly® brand that make our bags in Carrolton, TX.

Why is post-consumer recycled resin gray or tan?

When NOVOLEX™ recycles plastic bags and film they are made of individual colors and prints. When all of these colors mix together they turn tan or gray. Picture a kid who is finger painting, as they swirl colors together over time they turn to either gray or tan, much like post-consumer plastic bags.

Aren't bags that are made from recycled content lower in quality? **NO!** Bags made from post-consumer content pass the exact same quality tests as bags made from virgin material.

Recycled Content by Film Color:



How2Recycle Label



Novolex™ is proud to support organizations like the Sustainable Packaging Coalition (SPC) that promote industry wide sustainability initiatives such as How2Recycle the next generation of standardized recycling symbols. We are proud to work with our customers to and the SPC to get the right markings on your brands products.

Learn more at: How2Recycle.info

Label Example for Plastic Bag Packaging:

The Recyclability Icon

Identifies the material type of the packaging component

Packaging Material

Identifies the material type of the packaging component

Packaging Component

The specific part of the package referenced by the label



Program Website

Provides resources and information on the label, local recyclability and proper recycling

Sustainability Partnerships

Novolex[™] is committed to the protection of the earth through recycling and promotion of sustainable products. We are proud to be a member of the following organizations:



www.plasticsindustry.org/apba



www.abagslife.org



plasticsindustry.org



www.how2recycle.info



www.fpi.org



www.opcleansweep.org



www.flexpack.org



www.plastics.ca



www.ameripen.org

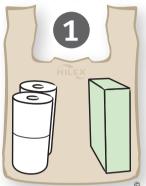


www.afandpa.org

Lesson 1 | Bagging

Bagging Techniques

Build sides with any item except for crushable items.



Fill the bottom of the bag by utilizing any available space.



Place lighter items on top of the bottom layer.



Plan the Order

A good bagger looks over the size of the order and plans the load.

Build Up the Walls

Make a trim square bag placing flat packages on the side of the sack which builds up the walls & gives the bag stability. It also makes the bag easier to carry and forms a protective center (funnel) for breakable goods.

Place Small Breakable Items in the Center

Keep glass bottles and jars off the top of the bag. Put them in the center (funnel) to ensure their protection. Always tighten caps on bottles before they are placed in the bag.

Pack It Solid

Fill in gaps with small merchandise. A solid pack prevents shifting and cuts down on breakage.

Open The Bag Quickly

Open the bag by putting both hands down through the center and squaring the bottom.

Split The Order For Equal Weight

Don't overload the bag by putting the bulk of heavy merchandise in one bag. Balance the load by placing heavy items in two or three bags, the customer will appreciate this gestur, especially if the merchandise has to be carried up a flight of stairs. Heavy items should always be double bagged. Avoid bagging where appropriate – see special handling section.

Crushables

Place crushables in a separate bag or on top of more solid, non-breakable items. Eggs, potato chips, soft fruits and vegetables, light bulbs, and bakery goods should be placed on top where they are free from pressure. Or place the crushables together in a separate plastic bag.

Build A Solid Foundation

Build a square foundation and distribute the weight in the center of the bag by placing small cans, glass jars and other items in it. This strong base helps the bag to stand upright and makes it easier to carry. From this point, continue to build your load from heavy to light. Notice the word "PLACE," never throw items into the bag. Place them with grace and speed, but never throw.

Special Handling!

Ammonia, bleach and other chemicals should not be placed with food items. The residue on these items will contaminate the food. Avoid danger by double bagging these items separately.

Don't bag large heavy items such as gallons of milk, gallons of bleach, gallons of water, sacks of vegetables, frozen turkeys, pet foods, laundry detergents, cases of soda and items with built in handles or carry assist capabilities.

CAUTION

In order to avoid bag failure and potentially serious injury to person or property, at all times and for all interactions with the bags, please follow the below instructions: • Maintain the integrity and structure of the bag, and prevent any scrapes, tears, abrasions, or holes; particularly when using bags along counters, in buggies, and against the consumer's goods. • Never overload the bag with excess weight or with goods that may cause the bag to fail. • Always use reasonable good judgment when packing bags with goods, and double bag the goods for extra protection or where necessary to avoid overload failure or goods that may cause the bag to fail, or as a last resort avoid bagging the goods altogether and place goods directly into the consumer's cart. Sample Goods to Consider for Double Bagging: • Metal Canned Goods • Glass Bottles, Containers, or Jars • Heavyweight Goods with unique or sharp edges or corners • Any Goods with unique or sharp edges or corners. When double bagging is warranted, the bagged merchandise should be picked up using all four bag handles. Sample Goods to Consider to Avoid Bagging and for Placing Directly into Consumer's cart: • Milk • Two Litre Containers • Large Wine Bottles • Large Canned Goods • Laundry Detergent • Frozen Turkeys • Any Goods with Built in Handles or Carry Assist Capabilities. Use extra caution at all times when bagging goods and always use reasonable good judgment to avoid bag failure and potentially serious injury to person or property.

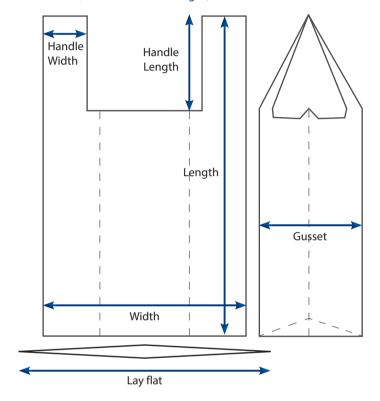


Item Count
Matters!

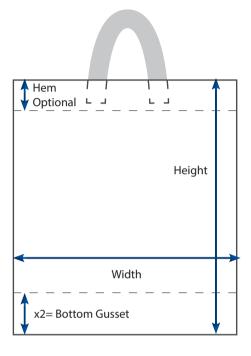
Lesson 2 | Poly Bag Sizing

How To Measure A Bag

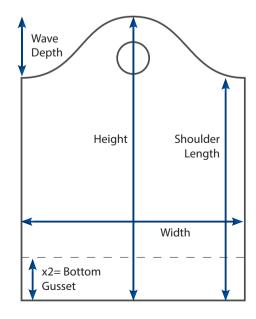
T-Shirt Bag (Width x Gusset x Height)



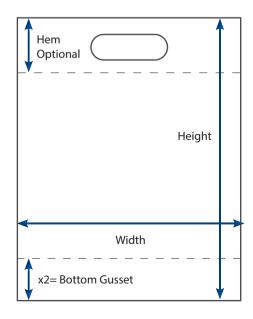
Soft Loop Handle Bag (Width x Gusset x Height, Hem)



Wave Top Bag (Width x Height + Bottom Gusset)

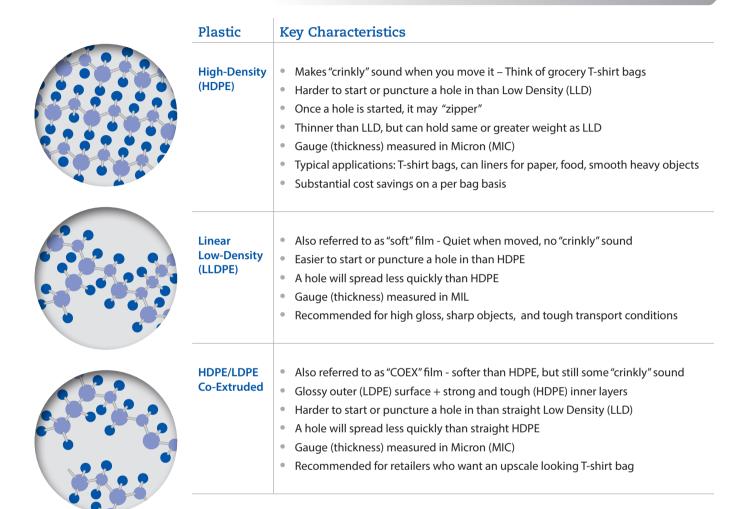


Die-Cut Handle Bag (Width x Height or Width x Gusset x Height)



Lesson 3 | Poly Bag Types

Film Materials



Lesson 4 | Mil & Micron

1 MIL = 25.4 microns

Gauge	Definition				
MIL	A MIL is a measurement equal to 1/1000 of an inch.				
Micron	A metric unit of length equal to one millionth of a meter (micrometer)				

Convert MIC to MIL Equivalents																	
MIC	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
MIL	.23	.27	.31	.35	.39	.43	.47	.51	.55	.59	.63	.67	.71	.75	.79	.83	.87

Plastic Bags 101

Lesson 4 | Poly Bags

Seal Configuration

Seal	Key Characteristics
Bottom Star Seal	 Most common type bag in the HDPE can liner and produce roll bag markets Bottom of the bag looks like a star or appears "bunched up" Conforms well to large round trash cans, fruits and vegetables Minimum leak potential Star seal are designated by two dimensions: width x length (i.e. 15 x 20)
Bottom Gusset Seal	 Forms a flat rectangular shape bottom Both sides are tucked in to form a pleat or gusset Conforms well to the shape of grocery and retail items Gusseted Bags are designated by three dimensions: width x gusset x height (i.e. 12 x 7 x 22)
Bottom Flat Seal	 No gusset, has a flat seal along the bottom (resembles a pillow case) Does not conform well to boxes or round items Holds 15-20% more than a star seal bag of the same dimension Medium leak potential Used for bulk items (seed, candy, confections) Flat seal bags are designated by two dimensions: width x length (e.g. 15 x 20)
Side Seal	 Bag with seals along each side of the bag The bottom may be formed with or without a bottom gusset Bags with a bottom gusset bags open to form a flat bottom Minimal leak potential Used for wicket bags, wave top bags, and soft-loop handle bags Side seal bags are designated by three dimensions: width x length x gusset (e.g. 21 x 20 x 8)

Glossary of Terms

Amorphous

Amorphous molecules solidify in a random, unorganized pattern. Amorphous is analogous to spaghetti noodles dumped in a bowl after they are cooked.

Bi-Modal

Describes a resin that has a high concentration of both high molecular weight and lower molecular weight molecules.

Blended Resin

Refers to the combination of two or more types of resin.

Bottom Seal Merchandise Bag

Refers to Merchandise bags with a heat seal located along the bottom of the bag. These bags may or may not include side gussets, and a die cut carry handle. Merchandise bags are popular in Retail accounts.

Butene

One of three types of LLDPE resin. Butene has lower film strength properties than hexene or octene, but is still a popular choice where both low cost and performance are important.

$Checkmate^{TM}$

Refers to HDPET-shirt bags packaged in a special under the counter dispensing system. This product is available is (2) stock sizes, and is one of the (2) systems popular in Convenience stores.

Co-Extrusion

COEX or Co-Extrusion refers to a process used to make multi-layer products which utilize different types of resin. COEX T-shirt bags are popular in retail accounts who want the a glossy Low Density layer, combined with the inner layers of HMW-HDPE for strength and toughness.

Colors

Retail bags come in standard colors: clear, white, kraft, yellow, blue, and gray. (Other colors available.)

Copolymers

Higher alpha-olefins added to the ethylene monomer to increase strength. Typical copolymers for LLDPE include Butene, Hexene, Octene, and Metallocene

Cored Rolls

"Cored" refers to bags or sheets on a roll that are wound on a paper or plastic core for dispensing. These products sheets are typically connected by perforations. Core diameters range from 1.0" to 1.5" ID.

Coreless Rolls

"Coreless" refers to bags or sheets that are wound on a roll without a paper or plastic core. These products may be connected by perforations, or with the perforations broken and interleaved for dispensing.

Crystalline

Crystalline molecules solidify in a very organized pattern. HDPE tends to be more crystalline than LDPE. Crystalline is analogous to spaghetti noodles in the box before they are cooked.

Dart Drop Test

ASTM test used to determine the impact resistance of the film. The film is clamped into a fixture, then Impacted by a smooth weighted dart. Results are typically reported as the average weight, in grams or grams/mil, that will puncture the film.

Density (g/cc)

Property related to how closely individual molecules will pack together. Following is a list of common density ranges for various grades of polyethylene (HDPE: .965-.941; MDPE .940-.926; LLDPE: .925-.915; LDPE: .940-.910; VLDPE: .915-.880

Elmendorf Notched Tear Test

ASTM test used to measure the resistance to tear propagation within the film. Results are typically reported as the average force, in grams or grams/mil, to continue a pre-cut tear line through the film in both the MD (Machine Direction) and the TD (Transverse Direction).

Film Strength

Refers to the overall physical strength of the bag. HDPE bags have higher tensile and puncture strength, while LDPE bags tend to have higher tear strength and toughness. Hilex retail bags are made from high quality resins, and world class extrusion equipment to optimize overall film quality and strength.

Flat Seal Bag

Refers to bags which have a straight seal along bottom (looks like a pillow case). Flat Seals are common on can liners and roll produce bags, but may have a tendency to leak from the corners.

Gauge

Term used to describe average thickness of a bag. LDPE and LLDPE bags are typically measured by mil thickness, while HMW-HDPE bags are typically measured by micron thickness.

Header Bags

Refers to bottom seal style merchandise bags which include a blocked header and hanger holes at the top of the bag for dispensing.

HDPE

(High Density Polyethylene) HDPE resin provides excellent stiffness and puncture resistance, but lower notched tear resistance than LLDPE. HDPE resin is available in blow mold bottle grades and pipe grades.

Hexene

One of three types of LLDPE resin. Higher Alpha Olefin (High Grade Hexene) is commonly used in the manufacture of premium grade can liners. Properties include high film strength and increased tear resistance.

HMW-HDPE

(High Molecular Weight–High Density Polyethylene) HMW-HDPE resin provides excellent film tensile strength and puncture resistance, but lower notched tear resistance than LLDPE. This resin is a popular choice for T-shirt bags and institutional can liners. It Is common to call bags "HDPE" even though they use HMW-HDPE resin.

Ice Bags

Refers to side seal bags manufactured with special low density resin to withstand sub-zero storage conditions. Ice bags typically include a bottom gusset, and are packed loose or on a wicket for dispensing.

LDPE

(Low Density Polyethylene) This resin has good clarity and gloss, but weaker overall film strength. Today it is used with LLDPE to add gloss, or as the primarily resin for heavy gauge Food and Utility Bags.

LLDPE

(Linear Low Density Polyethylene) This is the resin of choice for modern can liner manufacturing technology. Bags made from LLDPE film provide an excellent combination of film strength, puncture resistance and tear resistance. LLDPE is also popular in Retail bags where aesthetics, and strength outweigh cost.

Melt Index

Property which describes how easily the material will flow when melted and put under pressure.

Melting Point

The temperature at which the material transitions from a solid to a liquid.

Merchandise Bags

Merchandise bags are bags with a straight top, supplied either with or without a die cut handle. Merchandise bags can be manufactured with either a bottom seal or with side seals, with or without gussets, with or without a die cut handle.

Metallocene

The term "Metallocene" refers to a special class of materials based on metallocene catalyst technology. The newer Metallocene catalysts allow the resin manufacturers to more accurately control the size and side chain branching of the resin molecules. Metallocene resins typically have improved clarity, toughness, and overall strength compared to conventional resins.

Glossary of Terms

Micron

Term used in the measurement of HMW-HDPE bags. 25.4 microns equals .001." 1,000 microns (M) = 1mm. HMW-HDPE bags typically range from 6 to 25 microns.

Mil

(One thousandths of an inch) Term used in the measurement of LDPE and LLDPE bags. One mil is equal to 0.001" Low density and Linear Low Density bags typically range between 0.50 to 4.0 mil.

Molecular Weight

Refers to the size or length of the molecular chain. High molecular weight means a very large molecule, resulting in a tough film (e.g. HMW-HDPE). Low molecular weight means a small soft molecule (e.g. PE wax).

Molecular Weight Distribution

Describes the proportion of low, medium, and high molecular weight molecules in the resin.

Octene

One of three types of LLDPE resin. Higher Alpha Olefin (High Grade Octene) is used in the manufacturing of specialty can liners and packaging films. Used in other applications because of its excellent physical properties.

Quikmate EZTM

Refers to the Hilex patented self-opening T-shirt bag dispensing system. Quikmate EZTM bags are offered in a number of different sizes for Grocery, Retail, Foodservice, and Convenience Store applications.

QuikStar™

Refers to the Hilex patented starseal self-opening produce bag dispensing system. QuikstarTM bags offer a narrow footprint, and offer consumers easy one-at-a-time dispensing.

Regrind

Regrind or Reprocessed refers to resin that has been used at least once before. Regrind can be post-industrial scrap or post-consumer recycled material. The overall strength properties of the resin is decreased slightly each time it is reprocessed.

Resin

Resin is the raw material used to manufacture the film. High Density polyethylene and Linear Low Density polyethylene are the most common materials used to make retail carrier bags. Other specialty polyethylene types include MDPE, mLLDPE, LDPE and VLDPE. Food packaging bags may also be manufactured using resins other than polyethylene including; polypropylene, nylon, EVOH, and PVC.

Reusable Bags

Reusable bags refers to bags designed to be used multiple times by the shopper. Plastic reusable bags must be a minimum of 2.25 mil thick, and comply with certain legislative guidelines.

Roll Bag

Roll Bags refers to bags which are connected by perforations then wound on a roll for dispensing. Hilex manufactures a number of different products on a roll including; Star Seal Bags, Side Gussetted Bags, Flat Bags, T-Shirt Bags, and Perforated Sheets.

RollMateTM

Refers to the Hilex patented one-at-a-time T-shirt bag on a roll dispensing system. RollMateTM bags are offered in a number of convenient sizes and are popular In Convenience stores where counter space is at a premium.

RollStarTM

Refers to the Hilex patent pending narrow profile bag-on-a-roll dispensing system.
RollStarTM bags are offered in a number of convenient sizes, gauges, and film colors to meet the merchandising needs of various departments within a modern your Grocery store. Hilex has stock bags for Produce, Meat and Organic items.

Seal

Term used for the line where two or more layers of film are joined together with heat, also referred to as a "heat seal". T-shirt bags include heat seals along the bottom, handles, and sometimes the sides.

Side Seal Merchandise Bag

Refers to Merchandise bags with a heat seals located along the left and right edges of the bag. These bags may or may not include a bottom gusset, and a die cut carry handle. These bags are also available with a hemmed top for extra carry strength. Merchandise bags are popular in Retail accounts.

Sinewave Bag

Sinewave refers to the shape of the handle on Wave Top bags. These bags are typically made from a single tube, split down the middle in an oscillating sinewave pattern.

Soft-Loop Handle Bag

Soft-Loop Handle refers to side seal bags which have plastic straps welded to the top of the bag to form the handles. Soft-Loop Handle bags typically include a bottom gusset, which opens to form a flat bottom. Soft-Loop Handle bags are popular for restaurant carryout, retail, and reusable bag applications.

Specialty Plastic Bags

Specialty Plastic refers to a new family of upscale plastic bag for retailer and foodservice applications. The Specialty Plastic Bag platform of products includes: UltraPrime Premium T-shirt, UltraPrime Reusable T-shirt, Soft-Loop, Merchandise, and Wave Top bags.

Star Seal Bag

Star Seal bags are folded to eliminate stress points along the bottom seal where leaks can occur. Because of the strong bottom seal, Star Seal bags are popular for thin gauge HDPE can liners and produce bags on a roll.

Tensile Test

ASTM test used to measure the yield point, % elongation, and ultimate break strength of the film. Results are typically reported for both the MD (Machine Direction) and the TD (Transverse Direction) of the film. Numerical values are listed as Imperial Units (PSI - pounds per square inch) or SI units (MPa - megapascals).

T-Shirt Bags

Term used for side gusseted retail carrier bags with integral strap handles. The handles are formed by a U-shape cutout at the top of the bag. T-shirt bags are available; loose pack, center tab, or with center tab + holes in the handles for dispensing. T-shirt bags are popular in grocery, discount retail, restaurant carryout, convenience stores, and reusable bag applications.

Trunkliners

Refers to convenient perforated plastic sheets on a roll, designed specifically to fit the trunk or back storage area of an automobile. Simply tear off a sheet, and spread it out in the trunk to prevent bedding plants, or other home and garden items from leaking onto the carpet of the automobile.

Ultra-Post™

Refers to the Hilex family of reusable T-Shirt bags using post consumer recycled content.

$UltraPrime^{TM}$

Refers to the Hilex family of upscale Premium and Reusable T-shirt bag. UltraPrime T-shirt bags are offered in a number of different dispensing options including: Quikmate EZTM and loose pack bags for Grocery, Retail, and Foodservice applications.

Virgin Resin

Refers to the usage of high-quality, "fresh from the reactor," resin. Food grade bags are typically made with virgin resin. Hilex retail carrier bags will typically include both in-house and postconsumer recycled content.

Wave Top Bag

Wave Top refers to side seal bags which have a sinewave shape top and die cut hole to form the handle. Wave Top bags typically include a bottom gusset, which opens to form a flat bottom. Wave Top bags are popular as restaurant carryout bags, retail shopping bags, and as 2.25 mil reusable bags.









