

www.Plasticbagrecycling.org

gefunden über <http://www.marinedebrissolutions.com/> => noch mehr Infos verfügbar

We can all make a difference

Plastic bags are recycled into many different products. Most plastic bags are recycled into composite lumber but can also be reprocessed into small pellets, or post consumer resin, which can become feed stock for a variety of products such as new bags, pallets, containers, crates, and pipe.

You can help by returning clean, dry, empty plastic bags to recycling drop off centers or retailers and municipalities that provide designated plastic bag recycling bins.

Recycling can save your business money and help the environment

Polyethylene plastic film (e.g., pallet wrap and grocery bags) has grown over the years and replaced other materials because of its low weight, high strength, and ability to transport products efficiently.

Clean polyethylene film is in demand by the major film markets and it can be recycled into a variety of products.

We have designed this site to assist you in setting up your own recovery program. The amount your company generates and the space you have available will determine your collection method - self haul to recycling facility, recycling pick up service, or self preparation of materials to sell to buyers.

Smaller generators or businesses with space constraints will likely need to find a recycler who either accepts clean plastic film at their drop off recycling facility or offers pick up service. **Large generators (> a ton per month) might consider baling material for market.**



Please recycle only clean, dry plastic bags and film. Remove receipts or any other items from bags.

- newspaper bags
- dry cleaning bags
- bread bags
- produce bags
- toilet paper, napkin, and paper towel wraps
- furniture wrap
- electronic wrap
- plastic retail bags (hard plastic and string handles removed)
- grocery bag
- plastic food storage bags (clean and dry) □ (e.g. Ziploc□ Bags)
- plastic cereal box liners
- Tyvek (no glue, labels, other material)
- diaper wrap (packaging)
- plastic shipping envelopes (remove labels)
- case wrap (e.g., snacks, water bottles)
- All clean, dry bags labeled #2 or #4.



Look for clearly marked bins at participating grocery and retail stores



Do NOT include the following.

The following are considered contaminants and could jeopardize recycling programs:

- NO food or cling wrap
- NO prepackaged food bags including frozen food bags (e.g., prewashed salad bags)
- NO film that has been painted or has excessive glue
- NO other bags or films
- NO bio-based or compostable plastic bags




Determining the type of plastic film

Plastic bags are made out of "film", or thin flexible sheets of plastic. Plastic film is typically defined as any plastic less than 10 mm thick. The majority of plastic films are made from polyethylene resin and are readily recyclable if the material is clean, dry, and not pigmented black.

The resin coding system was originally intended for rigid plastic containers only. However, many manufacturers are now putting the code on plastic films too. Check out www.plasticsresource.com for more information about plastics recycling, resin codes, and other types of plastic. If no resin code is printed on the plastic film or bag, the film's application may indicate the resin type since different resins are chosen for their unique performance (examples below). Also observe the plastic film's characteristics and appearance and compare to the descriptions below.

Mixing Plastic Film Types:

Many buyers, or end users, accept a mixture of LDPE, LLDPE, HDPE, and MDPE. It is **VERY important that you check your buyer's specifications**. **A big challenge in recycling is accumulating enough material to efficiently transport it to market**. **Combining compatible material is one way to improve efficiency**.

RESIN CODE	CHARACTERISTICS AND EXAMPLES
	<p>LDPE#4 - Low Density Polyethylene (unpigmented films have high clarity, moderate stretch & strength characteristics)</p> <ul style="list-style-type: none">• Bags (e.g., thicker newspaper bags, bread bags)• Bubble wrap (may also contain nylon) <p>Note: Bubble wrap recycling can be difficult without local markets due to shipping constraints.</p>
	<p>LLDPE#4 - Linear Low Density Polyethylene (unpigmented films have moderate clarity, slightly tacky feel to the touch, stretchy)</p> <ul style="list-style-type: none">• Stretch wrap• Bags (e.g. clear, thin newspaper bags)• Dry cleaning film• Agricultural films (silage bags, greenhouse films, wraps for hay bales) <p>Note: Because agricultural films often come in contact with the ground or most farm products, many recyclers currently reject this material due to contamination. Residue and paint used for UV protection are other contaminants often found on agricultural films.</p>
	<p>MDPE#4 - Medium Density Polyethylene (unpigmented films have moderate clarity, poor stretch and strength characteristics)</p> <ul style="list-style-type: none">• Consumer paper packaging (i.e. toilet paper, paper towel) <p>Note: MDPE is a variation on the production of LDPE and is often labeled #4. It is generally used as an alternative to other resins in film applications where strength is not required.</p>



HDPE#2 - High Density Polyethylene

(unpigmented films have some opacity, crinkle to the touch, low stretch, can tear easily, high strength)



- **Most grocery bags**
- **T-shirt bags**
- **Bags with sealed air for packaging** (e.g., air cushion)

Note: Release air from air cushions before including with bags

Contaminated film such as agricultural films or film with residue such as glue or paint may not have a market even though the film is polyethylene.

Information on other film types

RESIN CODE	CHARACTERISTICS AND EXAMPLES
	<p>PP#5 (high strength)</p> <p>Most woven bags or tarp</p>
	<p>OPP#5 (oriented PP) (unpigmented plastic films have high clarity, fairly stiff, crinkles to touch)</p> <ul style="list-style-type: none">• Garment bags• Textile packaging• Cigarette overwrap• Potato chip bags <p>Note: These plastic films are difficult to discern from PE films, except by texture and burn testing.</p>
	<p>Co-extruded Polyethylene Film (LDPE/HDPE)#7 (high strength from HDPE, smooth, flexible surface with high printability from LDPE; woven texture is apparent, but surface is smooth; often different color on opposite sides)</p> <ul style="list-style-type: none">• Woven lumber wraps• Mailing pouches and bank bags
	<p>Cross-linked PE#7 (no stretch, high strength, difficult to tear, crinkles to the touch, yellowish hue when crumpled)</p> <ul style="list-style-type: none">• Industrial film applications <p>Note: Cross-linked polyethylene plastic films are films that have been altered on a molecular level in order to significantly improve strength. Cross-linked plastic films cannot be re-melted and therefore are not usually recycled.</p>
	<p>PVC#3 (Dissolves when touched with solvent based glues)</p> <ul style="list-style-type: none">• Food contact packaging (especially frozen foods due to its low oxygen permeability and cold temperature performance)

	<ul style="list-style-type: none"> • Food wrap or cling wrap
	<p>Nylon#7 (typically thick, high strength plastic films)</p> <ul style="list-style-type: none"> • Food contact packaging (e.g., soup pouches or seafood packaging) <p>Note: Most plastic films with food contact are not recycled due to residue.</p>
	<p>PS#6 (crinkles to touch)</p> <ul style="list-style-type: none"> • Carrier sheets or other manufacturing materials <p>Note: Since they are crisper (less flexible) than most other plastic films they may be classified as rigid sheet rather than plastic films.</p>

Check out <http://www.plasticsresource.com/> for more information about plastics recycling, resin codes, and other types of plastic.

Recycling Coordinators

Information for Recycling Coordinators: Suggestions on how to support film recovery

Plastic film helps businesses protect products. Its use is growing due to its light weight and strength. Fortunately it is a good feedstock for a variety of recycled products such as composite lumber and containers. Let businesses in your community know that they might both cut disposal costs while also reducing waste at the source by recycling this valuable material.

Connect with recyclers

The Recycler Directory allows you to search for a variety of types of companies in the plastic film and bag recycling industry. Our list of service providers and drop off locations is limited due to the fact that plastic film is a relatively new recycling commodity. One of the goals of this resource is to encourage more recyclers to collect plastic film.

Points to consider for better communication with potential markets:

1. Consider what level of quality (specification) you can achieve.
 - What has the film been in contact with?

- Has it been exposed to the sun?
 - Is the material dry?
 - Is the material sorted by color or type of resin?
2. Are there labels, receipts, or other potential contaminants in the film?
 3. What size bale can you make?
 4. Can you transport the material?
 5. If not, can you store the material until the buyer is able to pick it up?
 6. How much material by weight can you get in a shipping container?
 7. Have you considered other options if one of your loads does not meet the specifications and is rejected by your chosen market?

Questions to ask a potential buyer:

1. What are the specifications? Do they accept different film grades and if so what is the price differential?
2. What is the market's procedure for resolving disputes about the quality of the load of film or what are their rejection practices?
3. What are their current prices and is it subject to change? How often?
4. What kind of long-term agreement is the buyer willing to make?
5. What are their payment terms?
6. What assistance do they offer as far as equipment and transportation?
7. What are their scheduling requirements?

Recovery Program Benefit Calculator

Keep track of the values you enter into the online calculator here.

Enter the local market value for baled film: \$/lb.

The best approach is to call some of the buyers listed in our recycling directory to find out what they're paying for truckload quantities (40,000 lbs). In order to get an accurate price you will need to make sure your material can meet their quality specifications and find out whether or not the price they quote is for material that's picked up or delivered by you to their location. If you want to test hypothetical numbers you might try 0.05 for a low end and 0.22 for the high end. Contact Moore Recycling Associates for additional market information.

Enter labor costs (including overhead): \$/hr.

Enter average labor hours required per bale: hrs.

Enter average bale weight: lbs.

Cost of baling wire: \$/lb.

Optional Section:

If you don't have baling equipment, you might want to evaluate the estimated cost of equipment.

Enter capital cost of baling equipment:	<input type="text"/>	\$
Enter economic life of equipment:	<input type="text"/>	months
Enter annual estimate of service costs:	<input type="text"/>	% of capital cost
Enter interest rate:	<input type="text"/>	% annual

Estimated benefits from your recovery program

Gross benefit per lb. of plastic film recovery: /month

Net benefit of film recovery (after marginal labor & supply costs): /month*

*Note: Estimate does not include the cost of storing and shipping the equipment.

Tips on identifying your recycling options [back](#)

Do you occasionally generate a small amount of clean, dry #2 LDPE or #4 HDPE film or bags?

You will have to **find a place to drop off** your scrap plastic bags and film. Some material recovery facilities or municipal recycling centers accept bags. If not, you might find another business (e.g., grocer) that will allow you to piggy back on their collection program. Our Consumer section has a directory of retail stores that offer bag recycling to customers.

Do you generate less than 1 ton (2000 lbs.) per month?

You will likely need to **find a hauler** that can pick up your material or a place to deliver your scrap plastic. If you do not currently have recyclers or haulers in your area that collect plastic film, you might consider:

- Asking recyclers/haulers who pick up cardboard if they would be willing to pick up plastic film with the cardboard
- Asking your local recycling coordinator
- Ask your suppliers about the possibility of backhauling your recyclables to their distribution center. Many distribution centers recover a variety of recyclable material.
- Ask neighboring businesses if they generate film so that you can entice a recycler by enabling them to service multiple accounts. Since fuel costs are high, recyclers must find efficient routes and collection methods.

Do you generate more than a ton (2000 lbs.) per month?

If you generate more than a ton (2000 lbs) **search for a recycler or end market** and ask whether or not they can help you find a solution to your collection challenges. If you cannot find a recycler that can accept your film, due to insufficient quantities, refer to the section above to identify a hauler.

Any truckload quantity

Search

Search by Company Name

If you know the company name or part of the company name, search for it here.

Company Name:

Search

Design your collection strategy & educate

[COLLECTION TIPS](#) | [SAMPLE SPECIFICATIONS](#) | [SIGNAGE & BINS](#)

Tips for Designing a Successful Collection Program: Education and Quality Control Are Key!

Contamination is often the biggest barrier to successful recycling as you strive to balance achieving high volume, low labor costs, and high quality. Sustainable programs also require efficient collection and transport of recyclables. Consider the tips below when designing your program.

Collection Tips

- Assess where most of the plastic film you plan to collect is routinely generated
- Select [collection bins](#) or racks
 - Open frame racks (found at industrial supply stores) capable of holding open a large transparent plastic bag have proven to be very effective. They enable your business to maintain quality control.
 - You might also consider cages or rolling carts for collection of scrap plastic film in areas that are away from the customer area of your business.
- Select plastic collection bags that can be recycled along with the film you're collecting
 - (e.g., bags made of HDPE, LDPE or LLDPE).
 - Bags both consolidate and protect the recovered film.
- For great handling efficiency choose bags sized approximately 38"x 65".
- Transparency, strength, size, and cost are significant decision factors for collection bags
- Place collection bin(s) near the plastic film generation point if possible, but avoid potentially wet areas.

- For convenience, make sure you do not make it more difficult to recycle the material than to discard it, so place recycling bins near the trash bins
- Be sure to include clear signage on both trash and plastic film collection bins
- If you are working with a hauler or recycler who is picking up bagged film with other recyclables such as cardboard or baled plastic film, work with them to find how best to prepare the material for pick up.
- Display samples of plastic film and bags to illustrate acceptable types of film for recycling to employees.
- Combine training with regular staff business meetings, such as weekly safety meetings.
- Consider dedicating cost savings to a dedicated employee fund as an incentive to recycle.
- If you have space for storage and you're generating more than a ton per month, consider baling your film. The calculator tool in this site may help you build a business case for the investment.

SuccessStories

SuccessStory ▶

It's in the Bag!

It's in the Bag is a plastic bag and film recycling program of Minnesota Waste Wise. It's in the Bag provides the opportunity for consumers and businesses to recycle plastic bags and film, oftentimes in communities where other recycling options do not readily exist. The program ensures that millions of pounds of film plastic is diverted from the landfill while at the same time providing employment for adults with disabilities, who collect and sort the plastic material in It's in the Bag participating communities.



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Illinois Plastic Bag Recycling Task Force

The Illinois Plastic Bag Recycling Task Force was formed to raise consumer awareness about plastic bag recycling and its availability in Lake County. The Task Force was charged with implementing a pilot program whose goal is to increase the recovery of plastic bags and other plastic film. Additionally the Task Force was responsible for producing a comprehensive report for the Illinois General Assembly detailing the costs and benefits of at-store plastic bag collection in Lake County, IL. [View Full Report](#)



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Bag Central Station

In order to create a convenient, efficient and effective program, the City of Phoenix partnered with the private sector to recycle plastic bags instead of banning plastic bags or requiring mandatory recycling. The City of Phoenix worked with the Arizona Food Marketing Alliance (AFMA) and retailers to develop consistent branding around plastic bag recycling.



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S.C.R.A.P

S.C.R.A.P. is a for profit branch of the non-profit California Grey Bears (www.californiagreybears.org) that works in conjunction with Santa Cruz County to provide a convenient way for local businesses to recycle film, as well as cardboard. They offer a pickup service and they accept cardboard and film/bags dropped off at their facility. They service 200+ businesses in Santa Cruz.



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