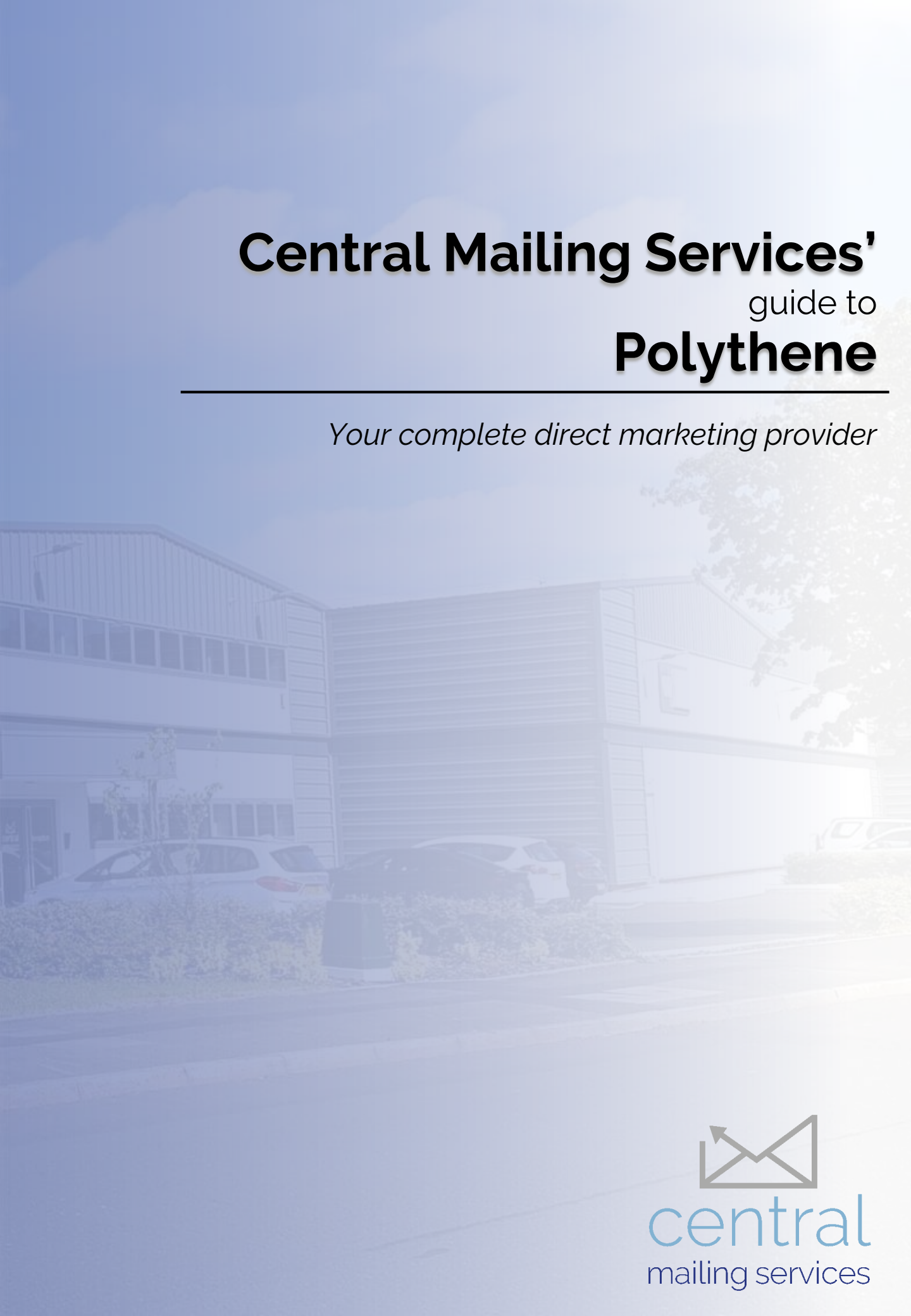
Central Mailing Services' guide to Polythene

Your complete direct marketing provider



central
mailing services

Basic Polythene

LDPE – Low Density PolyEthylene

1. Collection

Post consumer packaging film waste is collected from households together with other materials. It is then transported to a sorting centre, where different material streams are separated. Sorted flexible films (e.g. foils, bags, wrappers, etc.) are pressed into bales.

2. Sorting

At the recycling plant film is further sorted, separating out LDPE films from other flexibles such as multilayers, black film, metallised plastics and paper labels.

3. Grinding

Film is cut into flakes, in preparation for washing.

4. Washing

To remove contamination, flakes are washed using a friction washer. Separation step is built-in within the washing process. In a floatation tank films float while heavier materials sink.

5. Filtration

LDPE flakes are melted and extruded into pellets. They pass through 90 µm screens, to filter out impurities of non-melted particles such as PET, PA and PP.

6. Conversion

LDPE pellets are transformed into a final product (e.g. via the process of blown film extrusion). LDPE pellets can be converted back into films, like collection and refuse bags, containing up to 100% recyclates.

4
LDPE

This mailing bag is 100% recyclable and can be recycled at local carrier bag stations

Bio-degradable Polythene

POLYBATCH® DEG 68 UK

POLYBATCH® DEG 68 UK is a masterbatch which degrades Polyethylene under the influence of light and heat. The addition of 2 to 3% POLYBATCH ®DEG 68 UK will produce a photochemically and thermally degradable film.

Polyethylene containing POLYBATCH®DEG 68 UK will not degrade before being exposed to UV light. Once the Polyethylene has been exposed to UV light, the degradation reaction will be triggered and continues even in the dark. It will be accelerated by heat.

Once the Polyethylene has been transformed into a fine powder, many studies have shown that biological degradation will take place. The end products of biodegradation will be Carbon Dioxide and water, with a very small residue of non-toxic inert mineral material. Biological degradation can start when the molecular weight has been drastically reduced and when the surface area of the disintegrated plastic has been enlarged.

The residues of degraded Polyethylene are **NON-TOXIC.**

PHYSICAL PROPERTIES :

Carrier	PE
Specific Gravity (g/cm^3)	± 0.92
Bulk Density (g/l)	± 0.550
Moisture Content (%)	< 0.15
Colour	Light Brown pellets

USAGE :

POLYBATCH DEG 68 UK contains active metal ions embedded in LDPE. Degradation starts only after the metal ions have been activated by exposure to a UV light source.

The degradation speed is mainly dependent on:

- the presence of antioxidant and pigments
- the temperature
- the type of exposure
- the concentration of POLYBATCH DEG
- the thickness of the film
- the type of resin

For mulch application, only practical tests can determine the amount of POLYBATCH DEG that is required.

Practical tests must be performed to determine the optimum resin selection.

PACKAGING

POLYBATCH DEG 68 UK is packed in Polyethylene bags on shrink-wrapped pallets. It should be store inside for no longer than 6 months.

FOOD CONTACT

The active ingredients of POLYBATCH DEG 68 UK are approved for use in food contact applications according to directive 2002/72/EC.

Compostable Polythene
Polycomp™

Polycomp™ uses biopolymers, which are obtained by means of pioneering proprietary technologies using starches, cellulose, vegetable oils and their combinations. Polycomp™ conforms to EN13432 so is compostable in open air as long as there are micro-organisms to break it down and can be printed with the "OK HOME compost" logo.

Polycomp™ can be disposed of on any compost heap, in a household garden waste bin, a household food waste bin, or you can use it to line your food waste bin.

- Fully compostable at home
- Certified European norm EN13432
- OK HOME compost
- Available printed with OK HOME compost inks

Polycomp™ conforms to EN13432 so is compostable in open air as long as there are micro-organisms to break it down and can be printed with the "OK HOME compost" logo. The EN13432 OK HOME Compost certificate guarantees a minimum of 90% of the material will compost in 12 months, after the film is put into an environment with the micro-organisms, not when it's on the pallet wrapped up.

One of the first question we are usually asked is about the land the raw material is grown to check the product is not using up valuable arable land. Biorefineries use various local raw materials (low-input crops, waste, etc.) with full respect for the specific characteristics of the territories. An essential component of our research activity is the identification of autochthonous crops which can be cultivated in marginal and non-irrigated lands, thus making the most of the specific features of the land and increasing the fertility of the soil, while at the same time maximising the use of waste and residues as valuable sources of raw materials for the biorefinery.

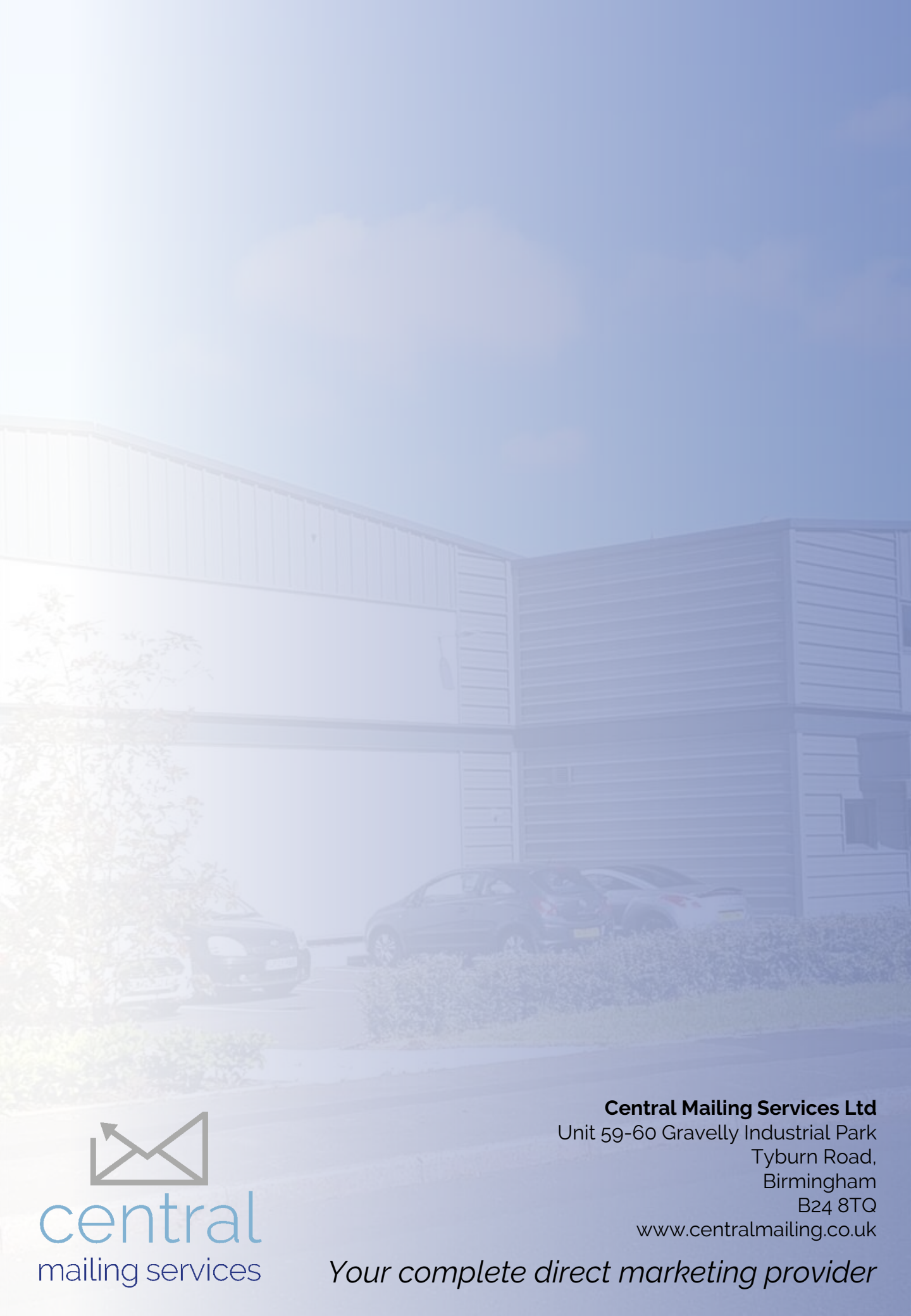
Sugar Cane Polythene
Polyair™

Polyair™ is a single layered film extruded using 75% bio-based polymer content. Combined with our Monolite™ polymer we can supply a thinner film whilst maintaining the required strength. Polyair™ is certified PAS2050 - CO^2 neutral by the Carbon Trust.

- Bio-based polymer content
- 100% Carbon neutral
- Less poly raw material
- Full recyclable (Code LDPE 4)

Polyair™ LDPE is made from sustainable raw material which is derived from Sugar Cane. When sugar cane is processed to make sugar, the cane is pressed 5 times to extract the sugar juice. The first two presses produce food safe sugar for human consumption and the remaining 3 presses are used to produce ethanol. For the last 30-40 years, ethanol has been sold as a bio fuel but recent advances in technology allow the ethanol to be converted into ethylene, which is where Polyair™ polyethylene comes from. (LDPE = Low Density PolyEthylene, aka Polythene) .

Here are the recycling details of the film:



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