



Envelopes going green?

A guide to choosing envelopes that can help minimise impact on the environment

Minimising the environmental impact of your mail communication starts with the envelope

As the first communication element the recipient interacts with, the envelope is an integral communication vehicle that can reinforce environmental initiatives and support a responsible approach to waste and recycling.

This brochure has been designed to present a range of envelopes that minimise impact on the environment. Contributions have been provided from a range of Australia's envelope companies, covering an overview of both the company and their envelope's environmental credentials. The information provided aims to assist you in choosing an envelope that suits your needs and reflects your organisation's commitment to managing the environmental impact of your mail communications.

In an increasingly carbon conscious and environmentally sensitive world, it is becoming more and more important for organisations to affirm and demonstrate their commitment to improving the environmental impact of their operations. As a consequence, business is being asked to take the lead and initiate real environmental change, while environmental organisations are influencing legislation and demanding more corporate accountability. Stakeholders are placing increasing demands

on businesses to measure and manage emissions, and implement environmental management systems to manage and reduce these. Importantly, consumers want 'green' products and services, and want the communication they receive to reflect the environmental position of the companies who send it.

When you combine this with the fact that consumers like to receive communications by mail, the use of an envelope that has substantiated its reduced impact on the environment is a powerful tool for your business to communicate your 'green' message, and promote your business.

The information contained in this brochure gives a quick introduction to just some of the issues and choices to consider. Your envelope supplier, printer or paper supplier can provide you with more information and help you to find an envelope with a strong environmental accreditation, to suit your needs.

“... We see business striving to be more efficient. This is not just a new marketing phenomenon. It is people taking responsibility for their impact on the climate.

This imperative will drive community decisions in the years ahead. Firms that reflect this sense of responsibility will find their fortunes prosper.”

Senator the Hon Penny Wong, Minister for Climate Change and Water,
Speech to the Australian Industry Group Luncheon,
Melbourne, 6 February 2008



Four considerations to help you assess the environmental impact of your envelope:

1. Paper stock - the source of the raw fibre and the chemicals used in the manufacturing process

2. Gums and sealing

3. Dyes and inks used for printing

4. Window-face

In this brochure you will find information on four of the environmental considerations to take into account when choosing an envelope, and a range of envelope products and solutions provided by a selection of companies that address one or more of these four considerations.¹

Each of the companies detailed in this brochure have advised Australia Post that they and their suppliers have:

- **ISO 14001 International Environmental Management Standard** - this is the certification of environmental management systems, covering planning, environmental performance evaluation, and auditing; or
- **Non-certified environmental management systems** - being implemented to identify, evaluate, plan, manage, improve and monitor the environmental management systems throughout their organisation.

Consideration 1: Paper stock - the source of the raw fibre and the chemicals used in the manufacturing process

Common environmental certifications

There are various environmental certifications that are referred to in relation to the paper source for envelope manufacture. The two most common are:

- **Forest Stewardship Council (FSC) certification** - indicates that the fibre used to make some of the product comes from an FSC certified forest, which is well managed according to strict environmental, social, and economic standards. Products with an FSC label mean that the fibre comes from an FSC certified forest, or recycled content from a controlled source, and is chain-of-custody certified. Only companies who comply and are certified can label their products with the FSC logo imprint.
- **Programme for the Endorsement of Forest Certification (PEFC)** - schemes dedicated to promoting sustainable forest management through independent certification. Only products which can contain at least 70% PEFC certified material can be labelled with the logo.



Where does your paper come from?

Paper used in envelope manufacture can come from a variety of sources:

- **Plantation Growth Forests** - planted specifically for paper production, plantation growth forests are a better source than Old Growth Forest's pulp.
- **Managed Plantation Fibre** - fibre used in the production of paper is sourced from managed renewable plantation forests. eg. FSC and PEFC.

Although not yet widely used in envelope manufacture, there are also a range of alternative fibres - banana fibre, cotton, flax, hemp, bagasse (sugar cane waste) - and 'roo' pulp!

What chemicals are used in the manufacturing process?

Wood pulp is bleached to improve the whiteness and brightness of the paper produced, by reducing and removing lignin and resin, and to clean and sterilise the pulp. Recycled paper is also bleached to remove ink and other impurities.

Paper mills have developed methods of bleaching that reduce the quantities of chemicals used and the level of chemicals produced. Some mills have also implemented "no effluent" methods, greatly benefiting the environment.

- **Totally Chlorine Free** - TCF paper is made from virgin fibre without using any chlorine gas or chlorine derivatives. Instead, Hydrogen Peroxide is used for bleaching.
- **Elemental Chlorine Free** - this is a pulp bleaching technique that uses Chlorine Dioxide. Once the process is complete, the chlorine atom leaves the process as chloride or salt.
- **Enhanced Elemental Chlorine-Free (EECF)** - this is the use of oxygen delignification and/or extended delignification processes, in addition to traditional ECF bleaching. This reduces the amount of bleaching chemicals required.

1. Australia Post has not verified the claims made by each of the companies detailed.

What is recycled paper?

When you start to look at recycled papers, you will find they contain different percentages of pre-consumer and post-consumer waste.



- **Post-consumer recycled** - post-consumer recycled fibre has been produced from waste discarded by the end-user. For example, it might contain the photocopy paper you put in your recycling bin at work, or at home. Paper made from 100% post-consumer waste, where it has been used at least once in the past, is the only paper that can be labelled as genuinely recycled.
- **Pre-consumer recycled** - this is also paper that would otherwise have become waste, but it never made it to the end-user. It is product that has been discarded at some stage in the manufacturing process, such as off-cuts when a page is trimmed.

Carbon neutral paper

Australian Paper, a member of the PaperlinX group, offers the ENVI range, Australia's first 100% carbon-neutral paper stock. ENVI paper is accredited through the Australian Greenhouse Friendly™ Program and is certified by the Australian Government's Department of Climate Change (DCC). This program ensures only Government certified products and services are mandated as carbon neutral, without fear of green washing. ENVI offers the same technical and quality attributes associated with current Australian Paper grades, with the added benefit of being carbon neutral. This means that the associated greenhouse gas emissions have been calculated and offset with carbon credits purchased through accredited carbon abatement providers.²



Australian Paper have taken their "well known brands, conducted a thorough life cycle analysis, and then reduced and offset all greenhouse emissions associated with their production - thus making them 100% carbon neutral."³

If you select an envelope that uses the ENVI range, you are entitled to include a logo showing that the paper is certified as "Greenhouse Friendly" by the Australian Government.



AGL's head of brand and external relations, Emily Kucukalic, said for AGL the decision to shift to greenhouse-friendly paper was a natural extension of the utility's sustainability objectives. "ENVI is one more way we can demonstrate this commitment and also show our support as a business for efforts to reduce carbon dioxide emissions, while maintaining quality print materials."⁴

Australian Paper executive general manager, Jim Henneberry, says, "most Australian businesses acknowledge a responsibility to minimise the social and environmental impact of doing business. Our consumer research confirms Australian consumers really support the idea of carbon neutral paper, and look more favourably on print materials that show the Greenhouse Friendly logo."

2. Dalton, "Go green with ENVI" FAQs, 2008.

3. Australian Paper "Go green with ENVI" brochure, 2008-10-30 ProPrint, featured article, September 26, 2008.

4. "AGL adopts ENVI, first Australian made greenhouse-friendly carbon neutral paper", ProPrint, August 20, 2008.

Consideration 2: Gums and sealing

The majority of envelopes are sealed using a gummed flap that can be stuck to the main body of the envelope to form a complete cover for the letter enclosed. The range of different types of sealing methods has increased over the years.

In the past, gummed sealing agents have been extremely popular, with the person sealing the letter often required to lick the gum, thus enabling its adhesive qualities. In recent times, people have become more conscious of the perceived health risk involved in licking envelopes and, as a result, there has been a move toward envelopes with strips of adhesive that are covered by a thin film. This film is then removed when the envelope needs to be sealed.

Adhesives and sealants used in the industry generally have minimal environmental impact.

- 'Lick and stick' has the least environmental impact as the adhesive breaks down in water during repulping.
- Self-seal envelope adhesives don't break down, but are skimmed during the recycling process of paper and do not significantly impact the process.
- 'Peel and seal' silicone-release paper cannot be recycled.

Consideration 3: Dyes and inks used for printing

Some of the most commonly used printing inks are petroleum, vegetable, or water-based.

- **Water-based ink** - water-based inks have the least environmental impact. However, check that the stock you are using will allow a water-based ink to effectively bind with the paper, otherwise it may reduce print quality.
- **Vegetable-based ink** - a popular alternative to petroleum-based inks are vegetable-based inks, which are alcohol and chemical free. These can be made from a variety of vegetable oils, including corn, walnut, coconut, linseed, canola, and soy-bean. Vegetable-based inks can be cleaner and brighter, and more rub-resistant than petroleum inks. They are well suited to uncoated and recycled stocks because the ink doesn't spread as much, and they're no more expensive than petroleum-based inks. Using vegetable oil in printing inks utilises a renewable resource and helps conserve finite petroleum supplies. The printing press can be cleaned with a water-based cleaner and the printed product is easier to de-ink in the recycling process.
- **Petroleum-based ink** - printing inks that contain petroleum oil to carry the pigment are the most commonly used because of their quick drying time and binding nature to the substrate.

Helpful Tip:

There are some extra post-press options available, such as embossing, thermography, foil stamping and die cutting, that may be used as an added marketing element. If you are considering using one of these, it is important to understand their environmental implications.

Consideration 4: Window-face

While the thin film used on a window-face envelope is only a small part of the refuse disposal chain, millions of window-faced envelopes are mailed every day. Considering the use of biodegradable film makes good environmental sense.

To make a window-face envelope completely biodegradable, material which will break down in a landfill must be used, such as materials made from cellulose, PLA or clear wood pulp products manufactured from wood sourced from certified, sustainably managed forests. 'Biodegradable' does not mean that this film is recycled, but rather it is material that is suitable for re-pulping (recycling).

In today's market, window film is made from three common sources:

- **Polystyrene** - a plastic film designed specifically for the needs of high-speed envelope production. Window film manufacturers are producing smaller and thinner windows for envelopes, in order to reduce plastic consumption.
- **Cellulose-based films** - these include glassine and acetate films.
- **PLA** - a new film derived from corn.

Suppliers

The envelope companies featured all claim to actively implement environmental management systems throughout their organisations. They have also indicated an ongoing commitment to providing business and consumers with a range of envelope solutions that address one or more of the 'four envelope considerations' detailed in this brochure.

Australian Envelopes (Envotec)

Enviromail is Australian Envelopes' range of 100% recycled, post-consumer waste product range. The new product offers an alternative to 60% recycled white paper. Enviromail is free from bleach, processing additives, and colour. The feedstock is made from locally sourced product, which in turn will help to reduce CO2 emissions.

Enviromail is an innovative new envelope from Australian Envelopes that has been designed to have a positive impact on the environment and, at the same time, provide a secure and notable statement of its ecological qualities. It combines function with practicality and is suitable for all forms of mailing.



Enviromail is made of 95gsm liner board paper grade that is comprised of 100% recycled post-consumer waste. Enviromail does not contain green tree fibre or virgin pulp. Post-consumer waste paper for Enviromail has been sourced within Australia and does not contain any imported content. This reduces greenhouse levels during manufacture and reduces landfill. The manufacture of Enviromail requires NO bleaches or chemicals of any description.



Enviromail is suitable for postage, stationery and secure document transport. Enviromail can be recycled over and over again.

Origin was the first company to use Australian Envelopes' new Enviromail 100% recyclable envelopes.

The paper stock is made from 100% post-consumer recycled waste, and Australian Envelopes says that even the plastic window on the envelope is recyclable, (see below).



Reusable Easy-Open Envelope

Pioneered and patented worldwide by Australian Envelopes, the reusable easy-open envelope is extensively used in the transactional market, incorporating a unique method of resealing and reusing the envelopes for return post. The reusable envelope is totally secure on both journeys through the postal system, and is able to be used with automatic insertion equipment.

More information can be found by visiting www.australianenvelopes.com.au

Helpful Tip:

If the printer has the appropriate equipment to facilitate printing on recycled paper then you should find their pricing competitive.



PaperlinX Office

tudor® envelopes are the leading envelope brand from PaperlinX Office. Whether you are looking for recycled content envelopes, biodegradable windows, or envelopes made with carbon-neutral paper, tudor® can help you find the right mailing solution for your business needs. Biodegradable window film is available on custom-made envelopes from PaperlinX Office, manufacturers of the tudor® brand.



Some of the more popular envelopes from the tudor® ranges are:

tudor® white - a quality range of envelopes made from based paper that is PEFC accredited. Fibre is sourced from sustainably-managed practices. It is available in a wide range of the most popular and niche sizes, as well as custom-made options.

tudor® 60% recycled envelopes - these use 60% post-consumer recycled paper waste diverted from Australian landfills.

tudor® RP 100% recycled.

tudor® ENVI - these use a carbon neutral, Australian made base paper with emissions offset during the product life cycle.

tudor® Premium High white - a premium range of envelopes made from based paper that is PEFC accredited. Fibre is sourced from sustainably-managed practices.

tudor® ECO - unbleached brown envelopes manufactured from 100% post-consumer recycled paper were used for the self-promotional 'Practice what you Teach' printed envelope, (see below).



Helpful Tip:

Minimising solid ink coverage and the numbers of colours you use is a simple and effective way of reducing the environmental impact of your job.



tudor RP 100% recycled - available in white or brown kraft in a range of paper weights. The Tracks Magazine printed envelope uses this stock, (see above).

More information can be found by visiting www.paperlinxoffice.com.au and www.tudoreco.com.au

Suppliers

Wigg & Son

Wigg & Son are undertaking accreditation ISO 14001, and certification of 'Chain of Custody' Forestry Stewardship Council - FSC.



These measures position Wigg & Son to provide a range of envelope solutions that minimise environmental impacts within our market.

Wigg & Son has a range of environmental management systems and practices:

- Switching to vegetable and water-based printing inks has removed the need for solvents in the printing process.
- Computer-to-plate technology has eliminated the need for film and associated products and chemicals - a substantial contributor of waste and emissions within the envelope industry.
- Wigg & Son order large tonnages of recycled papers to provide cost opportunities to consumers for a product that is usually out of reach to the average envelope consumer.
- Wigg & Son has implemented a 'zero waste to landfill strategy'. All pre and post production waste is identified, and processes in place to reduce and recycle. Examples include capturing all waste generated during manufacturing, such as the paper trim and window patch, to be vacuumed directly from the machine into recycling containers.

ENVI Carbon Neutral Envelope

Finally an envelope developed to offset carbon emissions. This envelope is made using Australian Paper's ENVI range. The envelope features the Greenhouse Friendly Consumer logo on the back of the envelope that can be personalised with a company name.

eco envelope

The eco envelope is made for 100% recycled paper and uses vegetable-based gums and water-based printing inks. Window- faced options use recyclable plastic window film.



Boomerang Reusable Envelope

The envelope that comes back! Let the Boomerang Reusable Envelope do the work of two envelopes. This outer envelope transforms into a reply envelope by simply pulling open the tab at the side, removing the contents and replacing with return material, then resealing at the side. Boomerang envelopes use less paper, generate less waste and can also be made from recycled papers.



Be Environmentally Creative

Being environmentally responsible doesn't mean you have to sacrifice your creativity. Wigg & Sons can recommend the best environmental paper and combine it with some of the innovative designs from the "Let it rip" and "Custom Cut" range.

More information can be found by visiting www.wigg.com.au

Helpful Tip:

All envelopes have a matching or comparable paper stock that can be used for the inner communication elements.



Candida Envelopes

Candida uses both recycled and virgin papers in its operations. Their selection of these papers ensures envelopes can be made to a high quality - giving whiteness, surface finish, and stiffness, and enabling high quality print finish and machine insertion speed.



The recycled papers used have guaranteed minimum recycled content of 60% for white paper, and some of the newer papers now contain up to 100% recycled content. These papers, once converted into envelopes, can be recycled back into the pulp stream up to four times. Technically, the recycled paper is classified as "ECF" (Elemental Chlorine Free).

Candida confirms that their suppliers of virgin white paper grades use pulp that comes from sustainably-managed forests and plantations. All suppliers of virgin white paper grades to Candida use either "TCF" (Totally Chlorine Free), or ECF (Elemental Chlorine Free) bleaching processes.

Two of the key components of Candida's Environmental Program are the reduction and recycling of waste. All waste generated during manufacturing, such as the trim and window patch, is recycled, generally ending up in tissue and packaging grade papers. Candida is also recycling the outer packaging on paper reels received from suppliers.

Other Raw Materials and Packaging:

- **Inks** - water-based inks are used in Candida's plants for all flexographic printing.
- **Adhesives** - the adhesives used in the ECHO (and all Candida lick-and-stick envelopes) are water soluble and do not contain any materials harmful to humans.
- **Inward packaging** - plastic shrink wrap used on incoming paper reels and pallets is all retained and sent out for recycling.
- **Envelope packaging** - minimising the use of packaging, while preventing damage to the envelopes contained within, is a continuing focus for Candida. Candida has developed a 1000 Box to eliminate the need for outer cartons, and a 2000 Box which is reused up to five times through an integrated manufacturing and distribution system.

Candida Stationery has developed two symbols which you can use to identify the use of environmentally responsible paper in the manufacture of your envelope.

- **Recycled Logo** - Denotes that the envelope paper is comprised of at least 50% recycled material.
- **Sustainable fibre source** - Denotes that only trees from sustainably-managed forests were used in the paper making process.



"Candida eco window is another initiative marketed by Candida, addressing the recyclability and biodegradability of window material used in the mail system today. The eco window is in fact a 100% paper product and is made chemical free."

Paul Connolly, Candida Envelopes.

Whether it's a transpromotional or specialised direct mail pack, Candida Envelopes offer an innovative range of envelopes - such as the environmentally-friendly ECO window, and ECHO reusable which incorporates an innovative opening mechanism. Candida can manufacture envelopes of various shapes, sizes, and colour, on many substrates, and can incorporate interactive devices, and of course windows, to provide you with the opportunity to integrate creative content and response mechanisms to drive the best outcomes.

"We haven't had a problem with the ECHO reusable envelope since we started using it six years ago. You have to trust people to adopt a good idea that is really easy to understand. That's exactly what it is. Every time you ask someone about it, they tell you "It is so simple! Why didn't they do it before?..."

Elaine Irvine, Senior Rates Officer, North Shore City Council.



More information can be found by visiting www.candida.com.au

Suppliers

All-in-one mailers

Folded and sealed to form the outer envelope from a single sheet of paper, all-in-one mailers provide privacy if you need to include personal information. The appeal of all-in-one mailers is that they are quick, easy, and cheap to produce. Some of the more popular all-in-one mailers incorporate a tear-off return postcard or envelope, ensuring responses can be tracked.

Dot2Dot

Dot2Dot produce a range of mailing products that reduces paper usage for mailings by eliminating the separate outer envelope and the separate Reply Paid envelope.

Dot2Dot use 100% post-consumer recycled Cyclus and Evolve Office paper, sourced from paper mills in Europe that are accredited with ISO 14001. Cyclus printed waste paper is de-inked but not rebleached. Cyclus is available in a range of weights. The coated 115gsm paper is ideally suited to full-colour printing. The Evolve Office paper is de-inked and rebleached using a totally chlorine free process, to make a brilliant white 80gsm office paper.

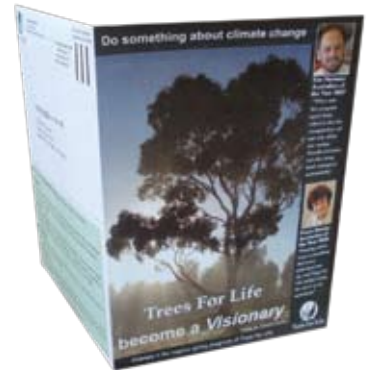
Dot2Dot Post advise they are making a contribution to the protection of the environment by promoting all-in-one mailings, manufacturing the mailing piece from a single sheet of paper that is folded to form the outer envelope, using special self-seal adhesive applied to the edges, and eliminating the need for the Reply Paid envelope - provided the communication fits on a single A4 sheet.

Self-sealing laser paper all-in-one mailers offered by Dot2Dot are available in three formats:

- **Addressed mail with Reply Paid** - every letter mailed in a campaign can be transformed by the recipient, into a secure, self-seal Reply Paid envelope.



- **Reply Paid DL brochure** - a brochure that can be transformed into a secure self-seal Reply Paid DL envelope.



- **Reply Paid A5 brochure** - a brochure that can be transformed into a secure self-seal Reply Paid A6 envelope.



More information can be found by visiting www.dot2dotpost.com.au

eLetter Wrap

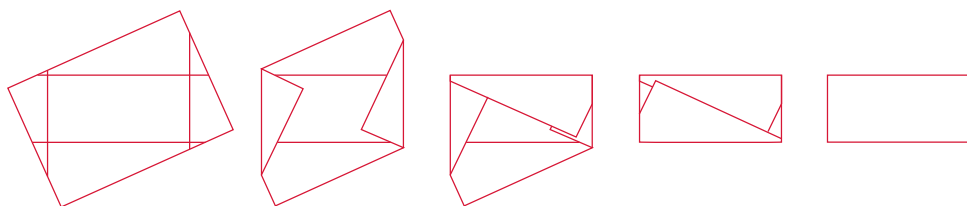


“We see it as our role to be the innovators and leaders in the mail industry, developing sustainable products for the future of mail.”

Frank Forgione, General Manager, eLetter Solutions

eLetter Solutions have worked closely with Industry partners in developing the eLetter Wrap, a solution which transforms an ordinary A4 page into a high-impact personalised communication and which doubles as the envelope. The power of eLetter Wrap is its all-in-one folding solution, enabling the entire mail piece to be personalised – including the inside and outside of the envelope and follower pages.

Totally unique in its design, the eLetter Wrap reduces unnecessary waste, as the entire piece can be variably printed. The eLetter Wrap process, combined with Xerox Recycled Supreme White paper, provides a high quality, cost-effective environmentally responsible direct mail solution.



eLetter Wrap - an all-in-one folding solution.

Xerox Recycled Supreme White

Xerox Recycled Supreme is manufactured from 100% Post-Consumer waste, de-inked and bleached in a Process Chlorine Free (PCF) process to achieve a high white recycled paper. Recycled supreme is manufactured by a Xerox-accredited mill to an exacting environmental standard that ensures the paper displays all the qualities of a virgin fibre sheet. Recycled Supreme is produced using a process conforming to ISO14001 and EMAS Environmental Management Systems. Recycled Supreme conforms to the highest level of ageing resistance, according to standard DIN 6738 (LDK 24-85), with a guaranteed product life of several hundred years.

“It makes sense to recycle and reuse paper fibres (and not landfill), without paying a high price and suffering inferior quality.”⁵

Recycled Supreme is produced using processes conforming to ISO14001 or EMS environmental management systems, as well as certified DIN6738 permanent paper. It is manufactured by one of Europe’s leading paper mills.

Xerox Recycled Supreme Tints

Recycled Supreme colours bring together recycled paper and the creative options of colour. Available in five pastel colours, you can add impact and interest to your documents without affecting your environmental support.



More information can be found by visiting www.auspost.com.au/wrap

5. Fuji Xerox Australia Pty Limited, Recycled Supreme Fact Sheet

“...it is no embellishment to say that climate change is the challenge of our generation... This challenge is going to require the efforts of all of us.”

Senator the Hon Penny Wong, Minister for Climate Change and Water.

Just because it's green doesn't mean it can't be creative

An envelope that has a reduced impact on the environment can also come in a variety of shapes, sizes and colours. You can now get envelopes with custom-designed window shapes as well as envelopes with a paper 'peel-and-reveal' window for special promotions.

For more information on the range of innovative envelope options visit www.mailmarketing.com.au/envelopes.

Australia Post's Mail Piece Testing Service

Mail piece testing has determined that nearly all envelope types can be efficiently processed by Australia Post's equipment and can be used when accessing all of Australia Post's services - including Regular Mail, Clean Mail, PreSort, Acquisition Mail and Impact Mail.

Terms & Conditions

Although correct at the time of publication, the information in this guide may be updated from time to time and may be subject to change. Australia Post has not verified the claims made by the companies presented in this brochure. Australia Post is not liable for the claims, information and content on each of the envelope companies that has been supplied by companies external to Australia Post. Please contact your suppliers for specific information in relation to the environmental credentials of the envelopes they provide. Australia Post shall not be liable for any loss or damage whatsoever arising from any errors or omissions in the brochure, or from reliance placed on all or part of its contents. © Australian Postal Corporation 2008. Material not to be reproduced without permission. All rights reserved.

Visit auspost.com.au under "Business Solutions" and then "bulk mail", for Australia Post specified envelope size and density requirements for these services and others.

If you want to confirm that your envelopes satisfy Australia Post requirements, want to check the suitability of the envelope you are considering, or have an envelope that is out of the ordinary, Australia Post's Mail Piece Testing service can advise you.

Simply email BQPHelp@auspost.com.au or send your envelope to: Mail Piece Testing, GPO Box 1777, MELBOURNE, VIC 3001.

Got an environmental envelope solution?

If you have an envelope solution that you would like to be considered for inclusion on the Australia Post website, please write to us at:

Green Envelopes
Mail Marketing
Level 16/321 Exhibition Street
MELBOURNE, VIC 3000

For more information

on the envelope companies detailed in this brochure, or to obtain direct links to these companies products and solutions visit www.mailmarketing.com.au/greenenvelopes