



# Cleanmail® and Cleanmail Plus™

Your user guide



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# It's simple



Send what we call 'letters'



Address them using an OCR font or a barcode



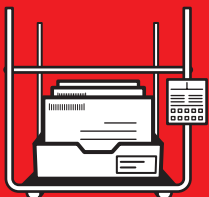
Add Printed Postage Impression or frank each item



Put the letters in trays



Label the trays



Put the trays into labelled yorks



Fill out a sales order or posting cheque and we'll collect your mailing

Cleanmail® cuts mailing costs on business letters.

All you have to do is make sure the addresses on your letters are up-to-date and can be read by our machines. We'll do the rest.

When your letters are machine-readable they can be sorted automatically which takes less time and costs less money. We'll pass the savings on to you.

Cleanmail's great for sending smaller numbers of letters (at least 1000 items). You can send any item we define as a letter:

- 100g or less
- 165 x 240mm (C5+) or smaller
- 90 x 140mm or bigger for OCR
- 90 x 140mm or bigger for CBC
- 5mm thick or less

And, we'll help you to prepare your mail to speed the whole process along.

## Choose what's right for you

Cleanmail has two delivery speeds and two address formats

### Two delivery speeds

There are two Cleanmail speeds to suit your deadline or your budget:

#### Cleanmail 1 (1<sup>st</sup> Class)

For mail to be delivered one working day after posting.

#### Cleanmail 2 (2<sup>nd</sup> Class)

For mail to be delivered within three working days after the day of posting.

### Two address formats

Whichever delivery option you choose, the savings you make with Cleanmail can soon add up. How much you save depends on which address format you choose:

#### Optical Character Recognition (OCR) fonts

With OCR, you need to print the addresses on your mail using given styles or recommended typefaces so that our sorting machines can read them.

Mailpieces must be in landscape orientation.

### Customer Barcoding (CBC)

With CBC, the Postcode and delivery point information are added to the address in the form of a barcode, which you apply to each item before passing your mail to us. This lets us sort your mail automatically. Mailpieces can be in landscape or portrait orientation.

### Save more with Cleanmail Plus

Your addresses need to be 90% accurate to qualify for Cleanmail.

If they're over 95% accurate, you'll qualify for an additional Cleanmail Plus discount.

To calculate Cleanmail or Cleanmail Plus prices for OCR or CBC addresses, check the rate card in the back of this guide or visit [www.royalmail.com/cleanmail](http://www.royalmail.com/cleanmail)

## Here to help

We give you equipment and dedicated support

### Your own account manager

We'll make sure that Cleanmail is introduced into your business as seamlessly as possible, via the Royal Mail Sales Centre or your own account manager. He or she will also be on hand to make sure you receive the highest standards of service and operational support, whenever you need it.

### Your own equipment

We'll give you all the equipment you need to run Cleanmail:

- trays to put your letters in
- yorks to transport your trays
- Place orders to record your posting

### Your own guidelines

We'll also give you guidelines to help you get your address labelling right:

- check your address accuracy against our Postcode Address File<sup>®</sup> (PAF<sup>®</sup>)
- use OCR
- apply CBC

## Fit for business

Cleanmail's ideal if you don't want to sort your mail – just address it using OCR or CBC

### When is a postal item a letter?

Remember that a letter is defined as any item that is:

- 100g or less
- 165 x 240mm (C5+) or smaller
- 90 x 140mm or bigger for OCR
- 90 x 140mm or bigger for CBC
- 5mm thick or less

If your item is thicker than 5mm, larger than C5, or contains inserts that aren't a uniform size, your mail can't be machine processed. (But, you could use our Mailsort or Walksort services instead.)

### How many letters?

Mailings need to consist of at least 1000 letters per day, per class, per site.

### What level of address accuracy?

You need to make sure that at least 90% of your mail matches our Postcode Address File (PAF). If your address accuracy reaches 95%, you'll qualify for further savings with Cleanmail Plus.

### What else?

You need to undergo a one-off Quality Assurance process before a Cleanmail contract can be issued.

This is to test your ability to prepare letters to our technical specifications. We measure read rates and address accuracy. On both counts, you must score at least 90% to qualify for Cleanmail and 95% for Cleanmail Plus.

For more information on what you need for this process, contact your account manager, or call your local Royal Mail Sales Centre on 08457 950 950.

To help you keep high standards in your mail presentation and continue to benefit from lower Cleanmail rates, we'll continue to carry out regular checks with you.

## Your Cleanmail® checklist

Make sure you've got everything ready to prepare your mailing

### Cleanmail 1 or Cleanmail 2?

Your choice will depend on whether you want your mail delivered one working day or within three working days after the day of posting.

### At least 90% address accuracy

Our Postcode Address File will help you to achieve this. For full details, turn to page 9.

### OCR or CBC?

If you choose to apply an OCR font, you need to keep certain parts of the envelope free of text and artwork, so that we can print and recover route codes as your mail is machine sorted.

Help designing your items and meeting OCR specifications is given on page 14.

With CBC you have freer artistic licence. For more information designing your items and meeting CBC specifications, see page 22.

### Trays for mailings

Always present your Cleanmail letters in trays – which we'll

provide for you – along with the correct labels. For details, see page 39.

### Complete a Sales Order or posting cheque

Each posting must have a cheque or sales order. Remember:

- you will also need to provide a customer collection receipt for postings spread over several collections and a sales order with the final collection of the day.
- you must send a correctly completed cheque with each mailing; incomplete or missing cheques may delay your mail.
- spoiled cheques should be marked 'spoiled' and sent with the correctly completed one/s.

See page 40 for help filling out your posting cheques.

### Arrange a collection

You'll need to give us notice of your mailing. This gives us time to plan collections and supply bags, yorks, documents and labels for you.

# How to prepare your mailing

Before you use Cleanmail, you need to know how to address your letters. The guidelines here will give you the full technical specifications.

Remember you have the choice of whether to address with an OCR font or a barcode. There are different guidelines for each.

There are also some things to remember when putting your letters into trays and Yorks and when completing a posting cheque or a sales order.

It'll only take a few minutes to read the guidelines and it'll ensure you get the most out of Cleanmail.

## Address your letters accurately Ensuring your records are accurate is essential for Cleanmail

People move all the time, which means your address records need to be regularly updated. Maintaining an accurate customer database has lots of benefits:

- improved perception of your company and your mailings by the recipient.
- enhanced ability to target mailings using demographic profiling tools.
- lower production and postage costs through elimination of duplicate records and undeliverable letters.

### How to manage your address data

Royal Mail's 'ListCleaner™' will help you to manage your address list data and help your data to work as hard as possible. Information on ListCleaner™ can be found by looking up [www.royalmail.com/listcleaner](http://www.royalmail.com/listcleaner).

Please note that other address products are available.

Keeping address data clean is an ongoing process, not a one-off activity.

The best way to maintain the accuracy of your addresses is to link your customer database to Royal Mail's Postcode Address File (PAF) with one of the large number of available products and services based on PAF.

Managing Address Data products and services (derived from PAF) are available in a variety of formats. Choose the format that fits your business needs:

- as integrated solutions from our Data Solution Providers (independent licensed companies who use PAF to develop and sell a range of address management products and tools).
- as raw electronic data, which you can process to suit your IT applications.
- on a CD-ROM with search, sort, export and print software options.
- in paper-based formats, including the Postal Address Book (a single regional source of correct addressing and general postal service information).

### Return address

Putting a return address on every letter you mail always makes good business sense. It means we can return undeliverable letters swiftly to you – reducing wastage, cutting costs and improving targeting for future mailings.

If you're paying for your service by applying a Printed Postage Impression (PPI) and would like us to return your undeliverable mail, it's now essential for you to include a return address.

## The elements of an address

Always include a premise element, a thoroughfare element, a locality element and the Postcode

### 1 Premise elements

After the addressee, always include at least one of the four listed elements, so that a single delivery point is defined. For CBC mail this must correspond to the accurate Delivery Point Suffix (DPS) if there is one in the barcode.

### 2 Thoroughfare elements

There are three possible things for you to do depending on what thoroughfare elements PAF includes:

- no thoroughfare in PAF means you don't have to include anything in this part of the address.
- a thoroughfare but not a dependent thoroughfare in PAF means you include the thoroughfare.
- both a dependent thoroughfare and a thoroughfare in PAF mean you include the former. (If space allows you can also include the thoroughfare, though it's not compulsory.)

1	<p><b>Addressee</b> J Smith</p> <p><b>Organisation</b> Royal Mail</p> <p><b>Sub-building</b> South Wing</p> <p><b>Building name</b> Bell House</p> <p><b>Building number</b> B-25 Bell Complex</p>
2	<p><b>Dependent thoroughfare</b> The Mews</p> <p><b>Thoroughfare</b> 300 Western Road</p>
3	<p><b>Double dependent locality</b> Otterley</p> <p><b>Dependent locality</b> Hedge End</p> <p><b>Post town</b> Oxford</p>
4	<p><b>Postcode</b> OX4 5ZZ</p>

### 3 Locality elements

Always include at least one locality element. Print the post town in title case – for example Birmingham – on a single line on its own and the rest of the address either in capital letters, or a mix of capital and non-capital letters.

Always ensure the post town and Postcode are on separate lines.

### 4 Postcode

Always include the full and accurate Postcode.

Where possible please ensure that each address element is on a separate line, with the Postcode, in capitals, included as the last line of the address. The county, whilst not required, may be included as the penultimate line of the address.

Country names are not required for Cleanmail because all postings are within the UK.

The postcode may be preceded by a County on the last line of address, provided that there are no more than one or two character spaces between both elements.

The Post town may be followed by a County on the penultimate line of the address, provided that the space between post town and county is no more than two character spaces and that the Postcode is on the last line of the address.

The post town and the postcode may be jointly on the last line of the address provided that the post town precedes the postcode and the space between the two elements is of one or two character spaces.

Any other text which could be construed as an address must be avoided.

Please do not underline or punctuate the postcode. Only punctuation in PAF is acceptable.

Always put one or two character spaces between the two parts of the Postcode. The first part (i.e OX4) is the outward code, the second (i.e 5ZZ) is the inward code.

### OCR or CBC?

Once you know your address database is up-to-date, you can go on to design your letters using the guidelines that follow.

OCR font guidelines begin on page 14 and the CBC guidelines on page 22.

## Addressing with an OCR font

### Everything you need to know about how to create OCR-addressed letters for Cleanmail

#### How OCR works

OCR lets you print your addresses in a typeface our sorting machines can read. It breaks each line down into separate characters or words and looks for vertical white paths between them.

When using OCR make sure your letters agree with these technical specifications.

#### Size, weight and format

Each letter must:

- not weigh more than 100g.
- be no smaller than 90mm x 140mm, and no larger than 165mm x 240mm.
- be oblong or square.
- not be printed in a 'portrait' format.
- Square items should be no smaller than 140mm and 140mm, and not larger than 165mm x 165mm.

#### Thickness

Letters must be between 0.25mm and 5mm thick.

#### Paper weight

Envelopes must be 70gsm minimum.

Postcards must be 200gsm minimum with a minimum thickness of 0.25mm.

#### Flexibility

Letters must be flexible enough to bend along their longest edge. Don't enclose inflexible objects such as coins, keys and thick card coupons.

#### Material

Don't use polythene, plastic or transparent letters, or 'aperture' envelopes (i.e window envelopes with no plastic film). 'Normal' paper is best.

#### Sealing

Opening flaps must be gummed and sealed as far along the edge as possible. Don't use metal clips or staples, and seal letters on all sides.

There is a maximum tolerance of up to 25mm of the envelope opening flap top and sides, where the flaps do not have to be gummed or sealed:

Figure 1 – Envelope Flap Sealing – Example 1 (Not to scale)

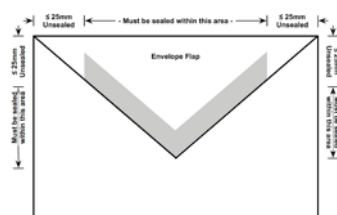
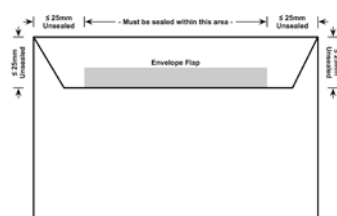


Figure 2 – Envelope Flap Sealing – Example 2 (Not to scale)



#### One piece mailers

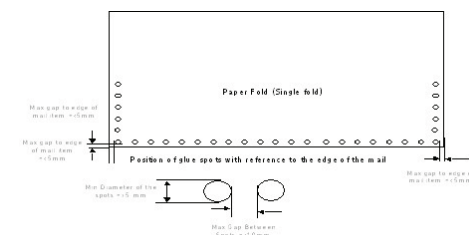
If you're using Cleanmail or Cleanmail Plus to post items that are folded from a single sheet of paper, you must follow the specification detailed below. This applies to both OCR and CBC mailings.

- Paper must weight more than 100gsm.
- The face of paper on which the address is printed must be more than 85% opaque. This will prevent any characters on the reverse side showing through.
- Each item must be sealed on all sides. This may be done by a continuous glue line or by a number of glue spots.

Adhesive strength for spot or continuous glue must be 0.45N minimum.

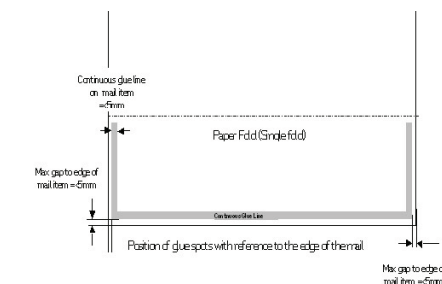
#### Glue application

When applying spot-weld, the distance between the two closest edges of the spots must be 10mm maximum. The size of the spot must be 5mm minimum in diameter.



#### Continuous weld

For continuous weld application, the maximum distance for the glue to be applied from the edge of the mailpiece is 5mm +/- 2mm.



#### Flaps

Flaps on one-piece mailers must comply with the following requirements:

- all touching faces must be glued.
- the sealing of the flap must meet gluing requirements outlined above.
- fold for a flap must be 25mm minimum.
- maximum fold for a flap depends on mail size, but the edge of the flap must be 40mm minimum from the bottom of the mail item.
- if the flap is on the front (address and OCR side) of the mail item, the edges of the flap must not interfere with the tag code area, as specified in the template.

## Addressing with an OCR font

### *continued*

#### Reference edge

The reference, or bottom, edge of the mail item must be a closed fold. For portrait style mailpieces, the reference edge is the longest edge closest to the barcode.

#### Multiple folds

If multiple folds are required, all edges of the mail item must be fully sealed.

#### Glue properties

The properties of the glue must not degrade by more than 10% due to automation processing or seep to the outside of the mailpiece.

#### Viscosity

The viscosity of the glue must be sufficient to ensure the glue doesn't run out onto the front face of the mail item or produce protruding mounds on the mail item.

#### Cure time

Glue must be fully cured prior to posting. Ensure sufficient time for this.

#### Tensile strength

The Tensile strength of the glue must be 0.45N.

#### Clear zones

It's advisable to leave a 10mm zone clear of print around the perimeter to ensure the adhesive properties of the glue are not impaired due to the properties of the printing ink.

#### Other requirements

All other requirements for OCR mail items still apply to one piece mailers.

#### Window envelopes

If you intend your address to be read through a window:

- the window should not infringe any of the clear zones on the mailpiece.
- the window position must be at least 15mm from the left hand edge of the envelope, and at least 18mm from its bottom edge.
- the maximum gloss value of the window material should be 150 when measured at 60° in accordance with ASTM 2457 Standard test method for specular gloss of plastic films.
- the window haze should not exceed 75% in accordance with ASTM D1003 Standard test method for haze of plastic films.
- the address must always be fully visible – make sure the letter can't move around inside the envelope.
- the window position must not interfere with the Indicia area, and must be, 18 mm from the bottom edge of the mailpiece, and, 15mm from the edge for the remaining three sides.

#### Designing OCR letters

Make sure your address database is up-to-date before you go on to design your letters.

#### Colour and logos

Always follow the guidelines below.

#### Paper colour

If your Cleanmail letters are to be delivered in envelopes, the most suitable colours for your envelopes are white, cream or buff. Other colours are possible, as long as they are light or pastel shades which contrast by at least 50% in tone with the address.

Never use red, green, black or dark coloured envelopes, as it makes it difficult for our machines to read the address or codes.

#### Printing and print contrast

The address must be darker than the paper. For example don't print the address in white ink on dark paper.

Never use red or dark colour ink for printing logos, designs or text behind the address, as our machines cannot read against it.

#### Background

Printing or embossing of security backgrounds, if essential, should be faint, of uniform consistency and on the inside of the envelope. The contrast factor must not be greater than 10%.

#### Advertising, logos and other devices

These can go on the envelope as long as they don't fall into any of the clear zones. Also, they must not look like an address or a barcode.

#### Address

All lines of the address must be left aligned (left justified).

The extremities of the address block must be at least 5mm away from the edge of the label or window.

Excessively skewed addresses can't be read. OCR only tolerates a maximum skew of plus or minus five degrees from the horizontal.

Avoid punctuation where possible (i.e don't put commas or full stops at the end of lines).

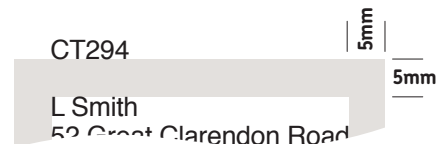
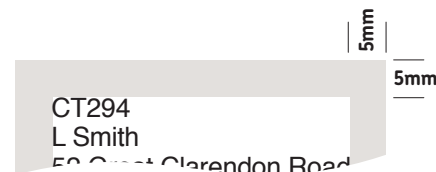
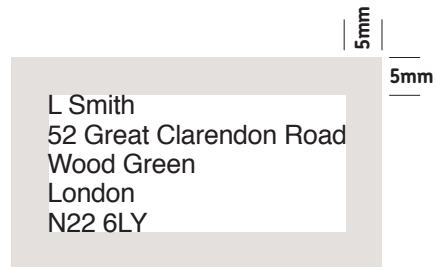
Only punctuation included in the PAF address is acceptable.

# Addressing with an OCR font

## continued

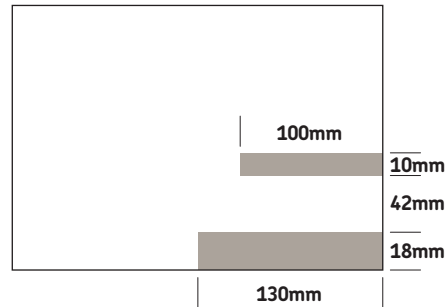
### Address block

If you want a reference number or code near the address, print it in one of two ways: either, within the address block as the top line of the address (left aligned to form part of the address), or, outside the 5mm clear zone. The 5mm clearzone may comprise 2mm inside a window envelope and 3mm outside the window envelope to the sides and below the address. The 5mm clear zone may be entirely outside the window above the address block. The address block must always be visible.



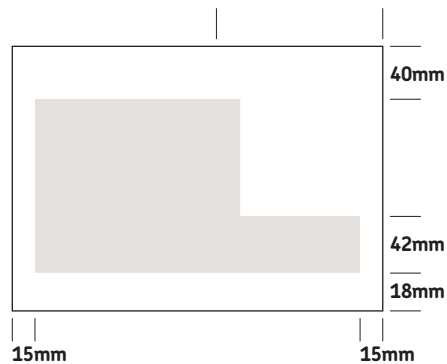
### Clear zones

OCR items need two clear zones: these are for our sorting machines to print and read codes on letters and to locate the address. These zones must be left clear:



### Address zone

You can place the address block anywhere within the 'address zone' as long as it is 5mm from any of your design elements:

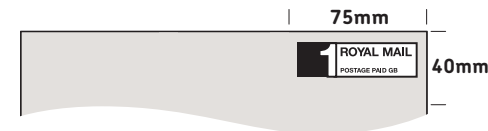


The clear zones and address zone fit together like this:



### Indicia area

The PPI and Franking indicia should be in the area defined in figure, below.



### Return address

Putting a return address on every letter you mail always makes good business sense. It means we can return undeliverable letters swiftly to you – reducing wastage, cutting costs and improving targeting for future mailings.

For return addresses on the reverse of envelopes, both PPI and franked items should be in an area no greater than 40mm from the top of the envelope. Note that the return address block should begin with the key words 'Return Address'. With franked and PPI letters, you can print the return address block on the front top left of the mailpiece, so long as you respect the address & indicia areas.

You may limit the line length of the return address block in order to achieve the clear zone tolerance.

It is recommended that return addresses are on the reverse of the envelopes.

### Can we check it for you?

If you're not certain that your design is acceptable, send us a sample to check in advance. We'll advise you of any issues, and suggest ways of redesigning it.

## Addressing with an OCR font *continued*

### Composing addresses with OCR

You need to pay scrupulous attention to typefaces and printing when composing addresses with OCR.

In order for OCR to work properly, only certain fonts can be used and print quality must be of a certain standard. For example, using typefaces that are more unevenly spaced than others (or printing labels on a printer where the ink is running low) may cause the letter to be rejected with us having to revert to manual sorting (which can create delay and affect your discount level).

### Choosing a typeface

There are a variety of fonts you can use, though we recommend using one from the list below wherever possible. We also recommend you regularly check the quality of your print output for clarity.

### Recommended OCR fonts and sizes

Arial 10–12pt, Avant Garde 11–15pt, Century School Book 10–11pt, Courier 10–15pt, Courier New 10–15pt, Franklin Gothic 11–15pt, Franklin Gothic (Book) 11–14pt, Geneva 10–12pt, Helvetica 10–14pt, News Gothic MT 10–12pt, OCRB 12pt, Univers 10–15pt, Verdana 10–12pt, Letter Gothic 12pt, Lucida Console 12pt, Lucinda Sans Typewriter 12pt and Monaco 12pt.

Typefaces with the following characteristics are also suitable:

### Size

Height: 2mm min, 7mm max;  
width: 7mm max.

### Proportion

Minimum ratio of lower case height (B) to upper case height (A) of between 2:3 and 3:4. A ratio of width (C) to height (A) of approximately 2:3.



### Consistency

Keep each line of the address in the same typeface and size.

### Quality

Characters must be complete, clear, uniform and of high resolution, with individual stroke thickness of between 8% and 16% of the height of the character.

### Contrast

Maintain a contrast between the characters and the background on which they are printed of at least 50%.

### Character spacing

Keep a fixed pitch of 10–12 characters per inch (or between 15 and 8pt), with clear vertical gaps of at least 0.25mm between adjacent characters. If you're using proportionally spaced text, keep spacing of at least +0.75, as this will significantly improve the rate at which addresses can be read.

### Line spacing

Allow uniform spacing between all lines of the address, of at least 1mm (5pt).

### Points to remember

OCR machines can read anything up to 32 characters per line (including spaces).

OCR cannot recognise computer zero (Ø) and ampersand (&). Script type or italic typefaces also cannot be read.

### Avoiding the pitfalls

Below are some typical problems which can prevent your mail from being processed by an OCR machine.

### Characters with incorrect proportions

Characters distorted from their original intended shapes or using extreme scale:

*stretched* or *condensed*  
*large* or *small*

### Characters with poor outlines

Characters that are fuzzy or blurred as well as characters with strokes which are incomplete, broken or smeared.

### Low quality characters

Characters which are poorly printed or defined, either because they have been

printed by low quality or low resolution dot matrix printers, or because the printer needs maintenance:



### Close character spacing

Characters which touch adjacent characters, whether on the same line or those from above or below.

ManorRoad or Manor Road  
EALING

### Unevenly spaced text

Characters or words which have too much space between them (more than four character widths or 10mm in size).

M a n o r R o a d

### Extreme typeface styles

Italic, inclined, graphic, pseudo-script or handwriting imitations. Typefaces with excessive serifs which touch or overlap adjacent characters or serifs.

*Script* or handwriting

### Serifs

Generally, sans-serif fonts are preferable to serif fonts:

Sans serif    Serif

## Addressing with CBC

### Everything you need to know about how to create CBC-addressed letters for Cleanmail

#### How CBC works

CBC means printing a barcode on your letter, as well as the address and Postcode. The barcode gives our machines the exact information they need to sort your letter for delivery.

When using CBC always make sure your letters agree with the technical specifications listed below.

#### Size and weight

Each letter must:

- not weigh more than 100g.
- be no smaller than 90mm x 140mm, and not larger than 165mm x 240mm.
- be oblong or square and produced in 'landscape' or 'portrait'.
- square items should be no smaller than 140mm and 140mm, and not larger than 165mm x 165mm.

#### Thickness

Letters must be between 0.25mm and 5mm thick.

#### Paper weight

Envelopes must be 70gsm minimum.

Postcards must be 200gsm minimum with a minimum thickness of 0.25mm.

#### Flexibility

Letters must be flexible enough to bend into an 'S' along their longest edge. Don't enclose inflexible objects such as coins, keys and thick card coupons.

#### Material

Don't use polythene, plastic or transparent letters, or aperture envelopes (i.e window envelopes with no plastic film). 'Normal' paper is best.

#### Sealing

Opening flaps must be gummed and sealed as far along the edge as possible. Don't use metal clips or staples, and seal letters on all sides.

There is a maximum tolerance of up to 25mm of the envelope top and sides, where the flaps do not have to be gummed or sealed:

Figure 1 – Envelope Flap Sealing – Example 1 (not to scale)

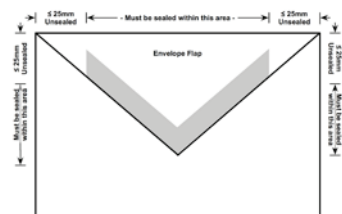
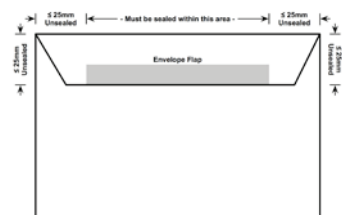


Figure 2 – Envelope Flap Sealing – Example 2 (not to scale)



#### One piece mailers

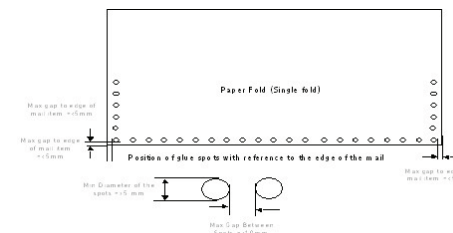
If you're using Cleanmail or Cleanmail Plus to post items that are folded from a single sheet of paper, you must follow the specification detailed below. This applies to both OCR and CBC mailings.

- Paper must weight more than 100gsm.
- The face of paper on which the address is printed must be more than 85% opaque. This will prevent any characters on the reverse side showing through.
- Each item must be sealed on all sides. This may be done by a continuous glue line or by a number of glue spots.

Adhesive strength for spot or continuous glue must be 0.45N minimum.

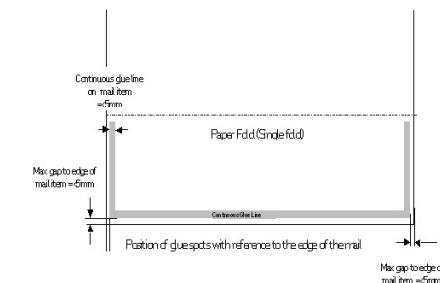
#### Glue application

When applying spot-weld, the distance between the two closest edges of the spots must be 10mm maximum. The size of the spot must be 5mm minimum in diameter.



#### Continuous weld

For continuous weld application, the maximum distance for the glue to be applied from the edge of the mailpiece is 5mm +/- 2mm.



#### Flaps

Flaps on one-piece mailers must comply with the following requirements:

- all touching faces must be glued.
- the sealing of the flap must meet gluing requirements outlined above.
- fold for a flap must be 25mm minimum.
- maximum fold for a flap depends on mail size, but the edge of the flap must be 40mm minimum from the bottom of the mail item.
- if the flap is on the front (address and CBC side) of the mail item, the edges of the flap must not interfere with the tag code area, as specified in the template.

## Addressing with CBC

### *continued*

#### Reference edge

The reference, or bottom, edge of the mail item must be a closed fold. For portrait style mailpieces, the reference edge is the longest edge closest to the barcode.

#### Multiple folds

If multiple folds are required, all edges of the mail item must be fully sealed.

#### Glue properties

The properties of the glue must not degrade by more than 10% due to automation processing or seep to the outside of the mailpiece.

#### Viscosity

The viscosity of the glue must be sufficient to ensure the glue doesn't run out onto the front face of the mail item or produce protruding mounds on the mail item.

#### Cure time

Glue must be fully cured prior to posting. Ensure sufficient time for this.

#### Tensile strength

The Tensile strength of the glue must be 0.45N.

#### Clear zones

It's advisable to leave a 10mm zone clear of print around the perimeter to ensure the adhesive properties of the glue are not impaired due to the properties of the printing ink.

#### Other requirements

All other requirements for CBC mail items still apply to one piece mailers.

#### Window envelopes

If you intend your address to be read through a window:

- the window should not infringe any of the clear zones on the mailpiece (see the CBC Mailpiece Guide on page 20).
- the window position must be at least 15mm from the left edge of the envelope, and at least 18mm from its bottom edge.
- the maximum gloss value of the window material should be 150 when measured at 60° in accordance with ASTM 2457 Standard test method for specular gloss of plastic films.
- the window haze should not exceed 75% in accordance with ASTM D1003 Standard test method for haze of plastic films.
- the letter inside the envelope must fit securely, and not move around. For CBC letters the barcode must always be fully visible, with at least a 2mm clear zone around it, and straight, never rotating more than five degrees compared to the edge of the envelope. The address must always be fully visible.

#### Barcode design

If you need to print a separate barcode for your own use on the front of the envelope, ensure that this does not affect our ability to read the Royal Mail barcode. Contact your Royal Mail account manager for advice on positioning.

#### Designing your CBC letters

Make sure your address database is up-to-date before you go on to design your letters.

#### Colour and logos

One of the benefits of using CBC is that it gives you creative flexibility in mailpiece design. You are free to use a wide range of colours and fonts.

#### Paper colour

If your Cleanmail letters are to be delivered in envelopes, the most suitable colours for your envelopes are white, cream or buff.

## Addressing with CBC

### *continued*

Never use red, green, black or dark coloured envelopes, as it makes it difficult for our machines to read the barcodes printed on them.

#### Printing

Ensure the barcode is darker than the paper. For example, don't print the barcode in white ink on dark paper.

#### Background

Printing or embossing of security backgrounds, if essential, should be faint, of uniform consistency and on the inside of the envelope. The contrast factor must not be greater than 10%.

#### Delivery Point Suffix (DPS)

A Postcode is not always enough to uniquely identify each delivery point in the UK (for example in shared buildings). Some Postcodes relate to only one delivery point, while others may cover up to 100. The average is 18.

For that reason, we've developed a Delivery Point Suffix (DPS). The DPS is a two character code (a number then a letter) which identifies each delivery point. The steps used to find the correct DPS for an address are explained on page 29.

Always include the DPS in the data converted into and printed as a barcode on all your CBC letters. All barcodes must include a DPS. This can be a default DPS (e.g 9Z) or the accurate DPS for that address. Default DPSs are explained on page 29.

Never print or write the DPS on the letter except as part of the encoded barcode.

#### Barcode orientation

Always print the barcode parallel to the edge of the mailpiece.

#### Return address.

Putting a return address on every letter you mail always makes good business sense. It means we can return undeliverable letters swiftly to you – reducing wastage, cutting costs and improving targeting for future mailings.

For return addresses on the reverse of envelopes, both PPI and franked items should be in an area no greater than 40mm from the top of the envelope. Note that the return address block should begin with the key words 'Return Address'. With franked and PPI letters, you can print the return address block on the front top left of the mailpiece, so long as you respect the address & indicia areas.

You may limit the line length of the return address block in order to achieve the clear zone tolerance.

It is recommended that return addresses are on the reverse of the envelopes.

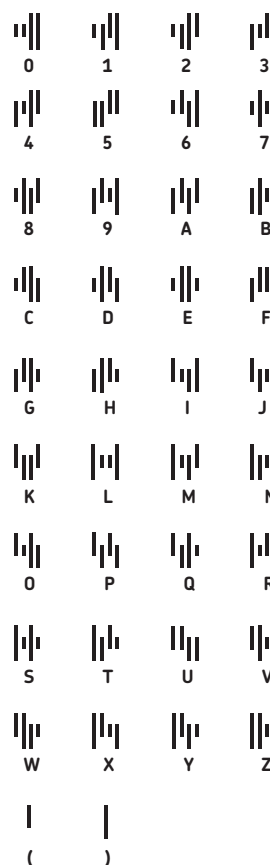
#### Elements of a barcode

We've developed a unique barcoding system for our mail sorting machines. It is capable of containing large amounts of data, and can be produced by all types of printing systems.

Each barcode 'character' consists of four bars. Two of these have ascenders and two have descenders. There is also a track element in all bars.

There are 38 valid characters:

- numbers 0–9
- letters A–Z
- open and close brackets ( )



#### A typical barcode

A complete barcode consists of:

- a start bar, positioned at the normal left end, next to the first significant data character.
- a set of characters, each consisting of distinct bars and spaces, which give the Postcode (outward then inward code, see page 28).
- two characters (a number and a letter) which give the DPS, see page 30.
- a checksum character to help us spot errors, see page 29.
- a stop bar, at the normal right end of the complete code next to the checksum character.



Print these elements in barcode format on the front of your letter in addition to the normal address and Postcode.

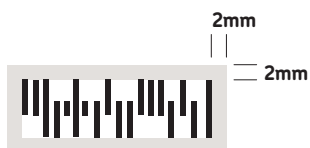
## Addressing with CBC

### *continued*

#### Barcode zone

Always position your barcode within the 'barcode zone':

- between 18mm and 120mm from the bottom edge.
- at least 15mm from the top, right and left edges.
- The CBC must not be in the Indicia area.



#### Indicia area

The PPI and Franking indicia should be in the area defined in figure, below.



#### Clear zones

These are areas that remain free of all markings. Do not print in any of these clear zones:

- a 2mm border around the barcode.
- other zones whose position may change according to the shape and size of your letters.

#### Barcode length and density

The barcode must be a continuous string of equally spaced bars, with no gaps or space characters. The length of the barcode varies according to the number of characters in the Postcode and their density (i.e how tightly they're spaced).

Set the barcode density at between 20 and 24 bars per 25.4mm.

The minimum length is 35.98mm for a five character Postcode at 24 bars per inch (25.4mm). The maximum is 54.34mm for a seven character Postcode at 20 bars per inch (25.4mm). Barcode densities can vary only within these permissible limits:

Start bar	Stop bar to fall within dark area
Five character Postcodes	
Six character Postcodes	
Seven character Postcodes	

The CBC Mailpiece Guide will help you get this right.

#### Edges

Barcode edges must be sharp and clearly defined to help eliminate misreading.

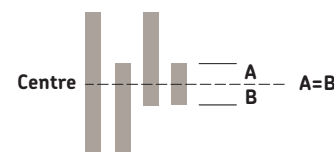
#### Size of bars

The range of permissible sizes is:

	Ascender	1.60 – 2.16mm
	Track	1.02 – 1.52mm
	Descender	1.60 – 2.16mm
Bar width 0.38 – 0.63mm		

#### Vertical alignment

Keep the track element of the bars symmetrical to the centre line:



#### Skew

Keep each bar as perpendicular as possible to the edge of your letter and to other bars. The most you can skew each bar is five degrees in either direction.

#### Optical specification

Always print your barcode so it contrasts with the underlying colour – black bars on a white background are best.

Maintain at least 30% difference in reflectance between the bars and the background. Ensure print quality is consistent throughout the code.

Always take into account the required value print contrast ratio = Maximum print contrast ratio = 40%.

#### Checksum character

The checksum character is used as a means of error detection to ensure that the rest of the barcode is correct.

If you don't use proprietary software from PIF® (Postcode Information File®) or a Royal Mail approved co-supplier then you'll need to work out the checksum character yourself. This involves using an algorithm, described on page 31.

#### Choosing a typeface

Royal Mail can supply you with a typeface for common software applications that produce barcodes. Or, we can provide a list of third parties who can carry out barcode printing on your behalf. To install the font onto a printer, you must buy the font from the printer supplier.

#### How to define the Delivery Point Suffix (DPS)

Every barcode needs a DPS to uniquely identify the delivery point within a Postcode. This can either be a default DPS you create yourself or the correct DPS for an address.

#### What is a DPS?

A DPS consists of a number then a letter. The number can be any from 1 to 9 but not 0. The letter can be any except C, I, K, M, O or V.

#### Creating a default DPS

Some addresses do not have a specific DPS. In such cases use a default DPS: either 9U, 9W, 9X, 9Y or 9Z – it's up to you. You can use the same default DPS for all addresses.

#### Finding out the correct DPS

There are four ways you can find out the DPS. These are listed overleaf.

## Addressing with CBC *continued*

### 1 PAF direct from Royal Mail

The DPS is included with PAF in both Compressed Standard or Main file format. If you take the information in any other format, you need to access the DPS through the Postcode Information File (PIF) (see opposite).

### 2 PAF from a Value Added Reseller

You need to talk to your supplier to arrange access to the Postcode Information File data (see opposite).

### 3 Address information from a bureau

A bureau can hard code customer lists on an agency basis (in much the same way as you may already have your lists Postcoded). They can add the DPS to your lists at the same time.

### Hard coded lists

Once a Postcode and DPS are allocated to an address, it is unlikely the address will change, although this may be necessary from time to time. It can therefore be beneficial to 'hard code' address lists with at least the DPS. This makes it easier to access the necessary barcode information for the addition of just two bytes per record (one Kbyte per 500 records).

The checksum character can also be hard coded, or allocated automatically at the time of printing through the use of a program.

### 4 Postcode Information File (PIF)

We offer a file that contains the Postcode, DPS and checksum character, plus an extra field – Delivery Point Data (DPD) – that uniquely identifies the address. The DPD is the house number or name. For flats, the relevant information from the Postcode Address File will appear.

Postcode	DPS	Checksum character	Delivery
S031 6XY	1A	S	1
S031 6XY	1B	T	Sea Breeze
S031 6XY	1D	V	3
S031 6XY	1E	W	Rose Cottage

Link this file either to PAF or to address lists which have a high level of Postcoding.

### PIF size

The file sizes of the various elements in PIF are:

Delivery Point Information	50 bytes
Postcode	7 bytes
Delivery Point Suffix	2 bytes
Checksum character	1 byte
Total size per record	60 bytes

With 24.5 million records, the total size of the file is 1,495 Mbytes.

### PIF format

PIF can be supplied on standard tape at 6250 bpi, ASCII or EBCDIC, with or without standard labels or IBM 3480 or IBM 3490E cartridges.

### How to calculate the checksum character

The checksum character is used as a means of error detection to ensure that the rest of the barcode is correct.

Checksum characters can be produced automatically through the software available from co-suppliers. They're also available on the PIF.

You can also calculate the checksum character by following three simple steps. We'll use a Postcode of SN3 4RD and DPS of 1A as an example:

#### Step one

Use the table to find the row and column number for each character in the Postcode and DPS – for example the letter S is in row 5 and column 5 and the number four is in row 1 and column 5. Note that the sixth row/column is numbered 0 not 6.

		Column:					
		1	2	3	4	5	0
Row:	1	0	1	2	3	4	5
	2	6	7	8	9	A	B
	3	C	D	E	F	G	H
	4	I	J	K	L	M	N
	5	O	P	Q	R	S	T
	0	U	V	W	X	Y	Z

Write the references down in a grid, (like that below) then add them up.

		Postcode:			DPS:		Total			
		S	N	3	4	R	D	1	A	
Row	5	4	1	1	5	3	1	2	=	22
Column	5	0	4	5	4	2	2	5	=	27

#### Step two

Divide the totals by six (it's always six, no matter how many characters are in the Postcode), and note the remainder. In our example:

Row:  $22 \div 6 = 3$  remainder 4

Column:  $27 \div 6 = 4$  remainder 3

#### Step three

Refer these remainder figures back to the table, finding the character where they intersect – this is the checksum character.

For our example, row 4 and column 3 gives the checksum character K.

Even if your 'left over' character is zero (i.e  $24 \div 6 = 4$  remainder 0), this still relates to a row or column on the grid.

## Perforations

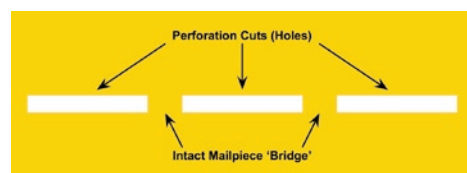
If the mail item incorporates perforations or tear-off strips, it must meet the specifications detailed below to ensure efficient processing and avoid damage.

### Roulette perforations

The perforations must be die cut into the items, the cut being the hole, and the bridge being the paper that is left intact and subsequently torn when the mailpiece is opened.

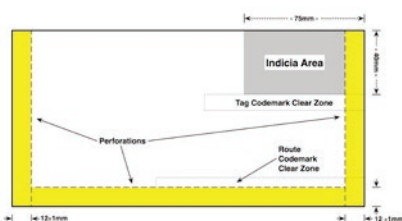
Ensure that all cuts and bridges are of uniform size, as detailed below:

Figure 1



- the 'long' side perforations must not extend beyond the left and right side (vertical) perforations.
- the items must be in landscape or portrait orientation.
- regardless of orientation, the indicia must not be printed over the perforations, and it must be 12mm +/- 1mm from each of the closest perforated edges of the mailpiece. This will limit the available indicia area. See below:

Figure 2 – Perforated mailpiece – not to scale)



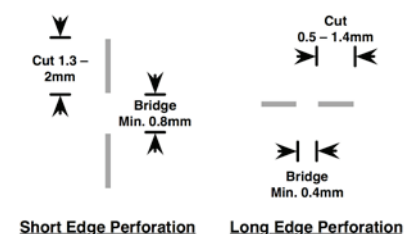
### Cuts

The cut must be rectangular in shape, and no wider than 0.1mm.

The cut of the 'short' side perforations must be set between 1.3mm and 2mm, with a bridge not smaller than 0.8mm.

The cut of the 'long' side perforation must be set between 0.5mm and 1.4mm, with a bridge not smaller than 0.4mm (see below).

Figure 3 – Perforation dimensions – not to scale



### Weight

The paper must weigh more than 100gsm.

### Colour

Make sure that no other colour is visible through the perforations in the Tag and Route Codemark Clear Zones.

### Sealing

The perforated edges must be securely sealed all round from the perforation to the letter edges.

### Glue

The glue must not run out onto the outside of the mail item or produce protruding mounds. It must be fully cured before you send your mail to us.

The tensile strength of the glue must be 4.5N minimum, and fibre tear must be exhibited on separation.

# Perforations

## continued

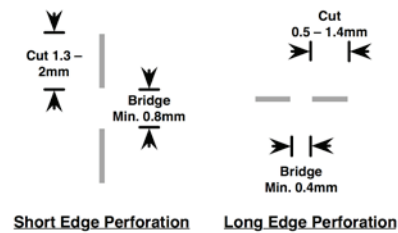
### Cuts

The cut must be rectangular in shape, and no wider than 0.1mm.

The cut of the 'short' side perforations must be set between 1.3mm and 2mm, with a bridge not smaller than 0.8mm.

The cut of the 'long' side perforation must be set between 0.5mm and 1.4mm, with a bridge not smaller than 0.4mm (see below).

Figure 3 – Perforation dimensions – not to scale



### Weight

The paper must weigh more than 100gsm.

### Colour

Make sure that no other colour is visible through the perforations in the Tag and Route Codemark Clear Zones.

### Sealing

The perforated edges must be securely sealed all round from the perforation to the letter edges.

### Glue

The glue must not run out onto the outside of the mail item or produce protruding mounds. It must be fully cured before you send your mail to us.

The tensile strength of the glue must be 4.5N minimum, and fibre tear must be exhibited on separation.

### Zip tie perforations

Make sure your letters follow these technical specifications. Only one Zip tie is permitted per mailpiece.

### Paper weight and format

Items must be 150gsm minimum.

The items may be presented in both 'landscape' and 'portrait' format.

### Perforations

The perforations must be die cut into the item and placed on the back of the item.

The Zip tie may be positioned either horizontally or vertically, but the 'tear' direction of the tie depends on the orientation of the mail item:

Figure 1 – Zip Tie Orientation – Landscape Mail (not to scale)

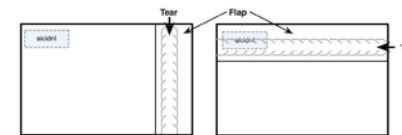
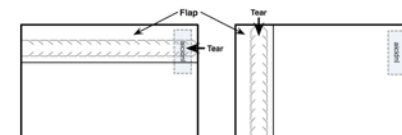
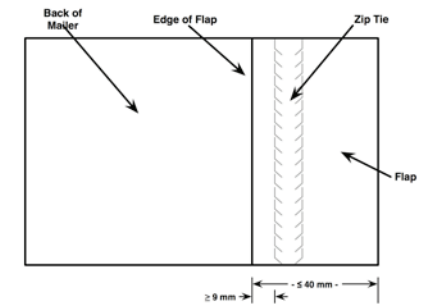


Figure 2 – Zip Tie Orientation – Portrait Mail (not to scale)



The Zip tie must be located on a flap that is not wider than 40mm. It must be a minimum of 9mm from the edge of the flap, as shown below:

Figure 3 – Zip Tie & Envelope Flap (not to scale)

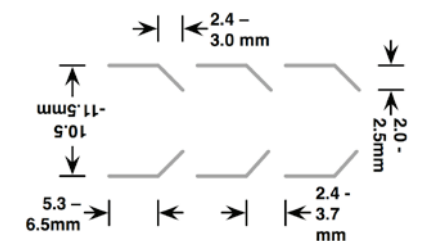


### Cuts

All cuts and bridges must be of uniform size, with the cuts always rectangular in shape and not wider than 0.1mm.

For Zip tie cut dimensions, see the example below:

Figure 4 – Zip Tie & Envelope Flap (not to scale)



## Perforations *continued*

### Glue

The glue used to seal the flap:

- must not run out on the outside of the mail item or produce protruding mounds.
- must be fully cured prior to presentation of the mailing to us.
- must have the tensile strength of 4.5N minimum, and fibre tear must be exhibited on separation.

### Quality Assurance

If you wish to post items with either a Roulette or Zip tie perforation, you have the option of going through part of our Quality Assurance process so we can check any new mailpiece designs for you prior to posting. Please contact the relevant member of your account team for further advice.

## Windows For advertising purposes

### Size, weight and format

Each mail item must:

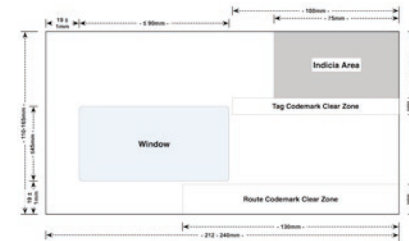
- be a minimum of 110mm, and maximum of 165mm in height.
- be a minimum of 212mm, and maximum of 240mm in length.
- not weigh more than 20g.
- not be thicker than 1mm.
- be in 'landscape' format only.
- have paper inserts only.

### Window dimensions

No more than one window is permitted on each side of the mail item.

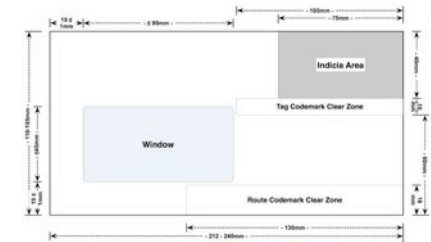
For OCR products, the front window must be rectangular and maximum 90mm long and 45mm high.

Figure 1 – Letter with Front & Back Windows – Front View – RM Codemarks (not to scale)



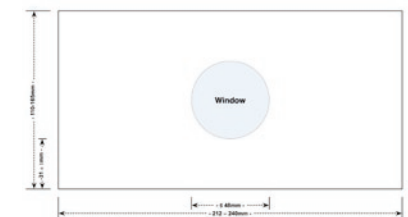
For CBC products, the front window must be rectangular and maximum 174mm long and 45mm high.

Figure 2 – Letter with Front & Back Windows – Front View – CBC processing (not to scale)



Back window for both OCR and CBC products must be circular, maximum 48mm in diameter.

Figure 3 – Letter with Front & Back Windows – Back View (not to scale)



### Window position

The front window must be 19mm +/- 1mm from the bottom of the envelope and 19mm +/- 1mm from the right edge.

The perimeter of the back window must be 31mm +/- 1mm from the bottom of the envelope and centred along the long edge.

# Windows

## continued

### Size, weight and format

Each mail item must:

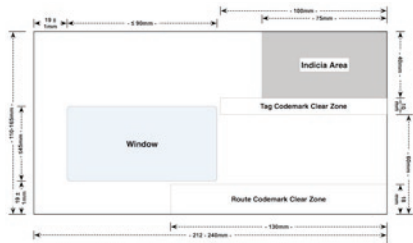
- be a minimum of 110mm, and maximum of 165mm in height.
- be a minimum of 212mm, and maximum of 240mm in length.
- not weigh more than 20g.
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- be in 'landscape' format only.
- have paper inserts only.

### Window dimensions

No more than one window is permitted on each side of the mail item.

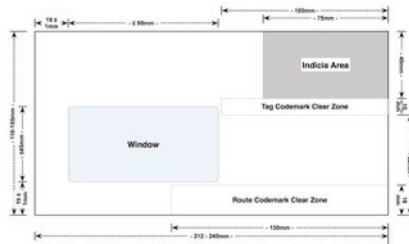
For OCR products, the front window must be rectangular and maximum 90mm long and 45mm high.

Figure 1 – Letter with Front & Back Windows – Front View – RM Codemarks (not to scale)



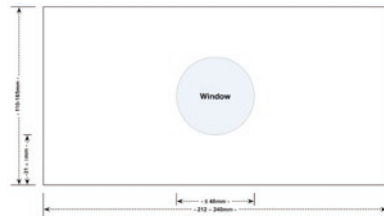
For CBC products, the front window must be rectangular and maximum 174mm long and 45mm high.

Figure 2 – Letter with Front & Back Windows – Front View – CBC processing (not to scale)



Back window for both OCR and CBC products must be circular, maximum 48mm in diameter.

Figure 3 – Letter with Front & Back Windows – Back View (not to scale)



### Window position

The front window must be 19mm +/- 1mm from the bottom of the envelope and 19mm +/- 1mm from the right edge.

The perimeter of the back window must be 31mm +/- 1mm from the bottom of the envelope and centred along the long edge.

# Prepare your mailing

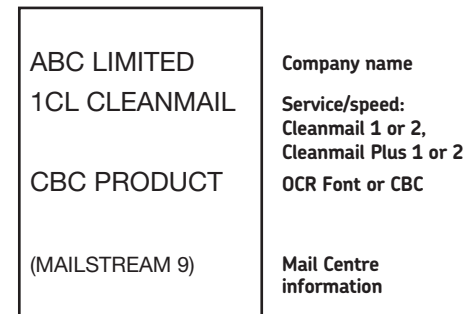
## Always put your Cleanmail letters in labelled trays and store the trays in labelled yorks

### Get the trays right

We'll give you all the equipment. You just have to do a few simple things:

- separate your letters into Cleanmail 1, Cleanmail 2, Cleanmail Plus 1 and Cleanmail Plus 2.
- separate your letters again into those using OCR and those using CBC.
- put each of the eight different letter types into separately labelled trays.
- make sure all letters are upside down and facing the front of the tray (the end of the tray with the label).

Tray labels looks like this:



### Differing sizes

Cleanmail letters of differing sizes (e.g C5 and DL) can be part of the same day's mailing but they must be the same delivery speed and use the same indicia (PPI or Franked).

### Yorks

Your local Mail Centre will give you yorks to transport and store your trays of Cleanmail.



### Yorks cards

Your account manager will give you tailored york cards containing details of the Cleanmail service you're using and your company name. These cards simply slot in the yorks.

# Fill out a Sales Order or posting cheque

## Always send us a correctly completed Sales Order or posting cheque for each Cleanmail mailing

You'll also need to provide a daily posting cheque for mailings spread over more than one day.

### Value of accuracy

Always make sure your Sales Order or posting cheque is accurate – it will form the basis of our invoice to you.

If you spoil any cheques, mark them 'spoiled' and send them with the others in an envelope. Incomplete or missing cheques may delay your mail.

### Help

For help and advice on completing your cheques, ask your account manager, your Royal Mail Sales Centre or visit [www.royalmail.com/cleanmail](http://www.royalmail.com/cleanmail).

### Electronic ordering

Our online Business Accounting Sales Orders lets you record your posting details online and provides additional reporting facilities.

# A to Z of posting cheque terms

## 1 Authorised by

A person in your organisation with the authority to sign a posting cheque.

## 2 Cheque\_of\_

Large mailings may need more than one cheque. If so, we need to know how many cheques are accompanying your mailing, and in which order they appear.

## Contract code

3 Your Royal Mail account may have several users, each identified by a unique code. Refer to your contract to check yours, or if in doubt, use 01. Please note: for Cleanmail Plus, use 99.

## Letter

### 4 An item whose:

- maximum weight is 100g
- maximum height is 165mm
- maximum width is 240mm
- maximum thickness is 5mm

## Large letter

### 5 An item whose:

- maximum weight is 750g
- maximum height is 353mm
- maximum width is 250mm
- maximum thickness is 25mm

## Mailing house code

6 A unique code we issue to each mailing house for identification.

## 7 Packet

Any item that is not a letter, large letter or A3 packet and whose:

- maximum length is 610mm
- maximum height is 460mm
- maximum width is 460mm
- maximum length for rolled items is 900mm with the length plus twice the diameter not exceeding 1040mm

## 8 PPI and PPI Number

Printed Postage Impression is a pre-printed alternative to stamps or franking to show postage has been paid. The PPI number is the unique PPI associated with your account.

## 9 RP code

This is for Royal Mail use only.

## 10 Your notes

This space is for you to write down anything you may need to remember about your mailing. Royal Mail will respect its confidentiality.

## 11 Your reference

To help with your accounts, any reference given here will appear on your invoice from us, along with the cheque number.

## Arrange your collection

We'll come to collect your mailing free of charge, as long as you're on the UK mainland

### Planning your mailing

Please don't leave it until the last minute to tell us about your mailing.

If you are posting continuously (daily) or regularly (at least once a week), you don't need to notify us of individual mailings. However, you should provide your local Accepting Office with a rolling forecast of the daily, weekly or monthly postings as appropriate.

(It's also a good idea to schedule regular planning meetings so both parties can identify the resources needed for the week or month ahead.)

If you're a less regular user of Cleanmail, you need to give at least two working days' notice of your intention to post.

This lets your Accepting Office plan collection, supply trays, yorks, labels and so on.

### Please remember

Any failure to give the defined period of notice or other required information entitles Royal Mail to refuse to accept or collect the posting on the date requested.

### Another option

You don't have to rely on us to collect your mailing. By prior agreement, you can always deliver the posting yourself to the Accepting Office.

### Latest collection times

Usually, Cleanmail mailings must be ready for collection from your premises by 6.00pm at the latest (unless otherwise specified by Royal Mail).

This can move to 6.30pm depending on which postcode area you are posting into.

To find out which time is specific to you, please check with your account manager or the local Royal Mail Sales Centre.

## **More for your business**

**We're committed to developing solutions and improving performance for our business customers. Why not get in touch to find out how we can help you?**

**To find out more visit our website  
[www.royalmail.com](http://www.royalmail.com)**

**For more specific details  
[www.royalmail.com/cleanmail](http://www.royalmail.com/cleanmail)**

**Call your local Royal Mail Sales Centre on  
08457 950 950 (local rate)**

**If you are deaf or hard of hearing,  
we offer a textphone service on  
08456 000 606**

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