

Mailmark Large Letters – Specification Requirements

The document sets out physical design, Indicium, addressing, barcoding and other Royal Mail Mailmark specifications that are required when posting Large Letters using Mailmark.

The document is designed to ensure that Royal Mail Large Letter processing machines can process and read Large Letters effectively at high speed, without the need for manual or other intervention. Each specification requirement set out in this Appendix M has been assessed and is categorised as either 'Mandatory' (M), or 'Recommended High Risk' (H) or 'Recommended Low Risk' (L):

- Large Letters that fail to meet the 'Mandatory' requirements are regarded as unmachineable and are very likely to have Surcharges applied.
- Large Letters which fail to meet the requirements that are identified as 'Recommended - High Risk' have a higher likelihood of performing poorly through our processing machines. Large Letters that fail to meet these requirements are more likely to have Surcharges applied and may become damaged in our processing machines.
- Large Letters which fail to meet the requirements that are identified as 'Recommended - Low Risk', may perform poorly through our processing machines. However, the risk is lower than that posed by failure to meet the 'Recommended High Risk' specifications and there is less chance of Large Letters being damaged or Surcharges being applied.

We have provided guidance footnotes that explain the risks associated with not meeting the 'Recommended' requirements.

At the bottom of the document we have also provided all of the Figures which are referenced throughout the document and which provide illustrative examples of the specification requirements.

1. Physical Specification Requirements Applicable to ALL Large Letters

1.1 These requirements apply to all Large Letters unless stated otherwise.

Category	Specification Requirement	M/R	
Size, Shape & Design	Shape	Rectangular or square with straight sides and 90° corners	M
	Orientation	Landscape or portrait	M
	Size (H x L x D)	<u>Rectangular</u> Minimum – 95mm x 145mm, Maximum – 245mm x 345mm <u>Square</u> Minimum – 145mm x 145mm, Maximum – 245mm x 245mm	M
	Thickness	Minimum – 0.5mm, Maximum – 10mm	M
	Weight	Minimum – 10g, Maximum – 750g	M
	Content / Inserts	<ul style="list-style-type: none"> • Inserts other than paper that are placed in an envelope must be fixed in position and attached to the largest paper insert. The inserts may include small metal objects such as keys, coins, and badges. • The spines on magazine inserts should be located on the reference edge ¹. 	M L ²
	Spatial Distortion & Lateral Movement	<ul style="list-style-type: none"> • Where there are step changes (i.e. multiple inserts) in the thickness of the Large Letter, at least 50% of the overall thickness of the Large Letter must be uniform. 	M
		<ul style="list-style-type: none"> • The lateral movement of the largest paper insert should be no more than 30mm (see Figure 34). 	H ³
Flexibility	The acceptable rigidity or stiffness for a Large Letter must be at least 8N.mm. This is determined using the test below (see Figure 35) :	M	

¹ The reference edge is the edge beneath the address for landscape rectangular and square Large Letters and the long edge to the left of the address for portrait Large Letters. The reference edge enables the letter to be processed through the machines efficiently.

² This enables effective presentation to the machine and subsequent processing.

³ Where the Letter Large thickness is variable and lateral movement is high, there is an increased risk of the Large Letter content being separated from the envelope or wrap.

Category		Specification Requirement	M/R
		<ul style="list-style-type: none"> ○ A single Large Letter is placed on a flat surface with the shortest edge of the Large Letter overhanging a straight edge of a flat surface by a horizontal distance of 100mm. ○ The leading edge of the Large Letter is then released and allowed to bend down under its own weight. If the leading edge drops to 40mm or more, then the stiffness is less than 8N.mm and the Large Letter is unmachineable. 	
Design	Separation	<ul style="list-style-type: none"> • Large Letters must be capable of separating by sliding one from another under the force of gravity, when placed on a slope of 65 degrees to the horizontal (see Figure 38). 	M
	Do Not Redirect	Not permitted for Large Letters	
	Logos & Advertising	<ul style="list-style-type: none"> • Any logo or advertising slogan printed on the Large Letter should not look like an address or include a geographical location, country or a Royal Mail bag or bundle label. • Slogans where the company name contains the words 'Return', 'Address' and 'Undelivered' should be avoided. 	L ⁴ L Error! Bookma rk not defined.

2. Paper Envelopes

Category		Specification Requirement	M/R	
Paper Envelope Construction & Design	Material	<ul style="list-style-type: none"> • Envelopes must be made from paper only and have NO open apertures. • Perforations (including Zip Tie perforations) must not be used on Large Letters. 	M M	
	Flaps	The opening flap may fold to either the back or the front of the Large Letter.	L ⁵	
	Sealing	<ul style="list-style-type: none"> • Adhesives used must be dry, and must not leak onto the open surface of the Large Letter. • Large Letters must not be stuck or caught together. • Envelopes must be securely sealed on the front, back, and all edges. • The flap should be sealed to within a minimum of 35mm from the fold of the envelope flap, and 25mm from the envelope sides (see Figure 36). 	M M H ⁶ L ⁷	
		Paper Weight	Minimum 70gsm for envelopes & minimum 200gsm for postcards	H ⁸
		Opacity	The paper used should be at least 85 % opaque (BS ISO 2471 - Paper and board. Determination of opacity).	H ⁹
	Absorbency	The paper used should have an absorbency of 15–35 gsm of water in 1 minute (BS EN 20535 - Paper and board. Determination of water absorptiveness).	H ¹⁰	
	Porosity	The paper used should have a porosity value of less than 700 ml per minute (BS 6538-2 - Air permeance of paper and board).	L ¹¹	
	Window	<ul style="list-style-type: none"> • Envelopes with apertures must have a window film covering the aperture, and the film must be securely sealed to the inside of the envelope on all sides of the aperture. • The Delivery Address block should be visible through the window. 	M H Error! Bookma rk not defined.	

⁴ To reduce any potential for address reading errors.

⁵ There is no preference here.

⁶ This ensures that the seals are strong enough to remain intact during the rigours of mechanical and manual handling.

⁷ This may result in the unsealed portion of the flap being torn during processing

⁸ This ensures that the Large Letter is strong enough to withstand the rigours of mechanical and manual handling.

⁹ This facilitates Mailmark, address, and Indicia reading.

¹⁰ This facilitates the application of codes and artwork to the Large Letter (i.e. the ink soaks in and does not rub off).

¹¹ This facilitates the single item sorting when mail is placed on the machine (i.e. fewer double fed Letters and missorts).

Category		Specification Requirement	M/R
		<ul style="list-style-type: none"> The window film should be flat and fixed evenly across the surface area it is in contact with. The window film should be robust enough not to become creased, crumpled or otherwise deformed. 	H ¹² H Error! Bookmark not defined.
	Number	There should be no more than 1 window on the front of the Large Letter.	L ¹³
	Size	The window must take up no more than 25% of the surface area.	M
	Shape	Windows should be rectangular (with rounded corners).	L ⁸
	Position	Windows must be located at least 40mm from the top edge and at least 15mm from the left, right and bottom edges (see Figure 42 and Figure 43).	M
Win Cont.	Gloss	The maximum gloss value for the window should not exceed 150 when measured at 60°, in accordance with American Standard Test Method (ASTM) 2457.	H Error! Bookmark not defined.
	Haze	The maximum haze value for the window should not exceed 75% in accordance with (ASTM D1003-00 Procedure A (Hazemeter)).	H Error! Bookmark not defined.

3. Polymer Wrap

Category		Specification Requirement	M/R
Polymer Wrap Construction & Design	Material	<ul style="list-style-type: none"> Polymer Large Letters must be made from a polymer film. e.g. polyethylene. The film must be intact, undamaged and must not be punctured, split or torn¹⁴. The film must be sufficiently robust to tolerate manual handling without tearing or splitting at the seals. The single layer film must be greater than 15 µm (15 microns) thick when measured at any point on the Large Letter. 	M M M M
		<ul style="list-style-type: none"> Where the Delivery Address is to be read through the film, the gloss value should not exceed 150 (American standards of testing and materials (ASTM) 2457 Measured at 60°). Where the Delivery Address is to be read through the film, the haze value should not exceed 75 % (ASTM D1003-00 Procedure A (Hazemeter)). 	H Error! Bookmark not defined. H Error! Bookmark not defined.
	Design	Any text, barcode, or graphics that are printed on the wrap should adhere to the film and should not break up or wear during processing.	M
	Sealing	<ul style="list-style-type: none"> The wrap must be securely sealed. 	M
		The requirements for the Longitudinal Seal are as follows (see Figure 39). <ul style="list-style-type: none"> The seal for the Polymer wrap must run along the length of the Large Letter. 	M

¹² This ensures that the Large Letter is strong enough to withstand the rigours of mechanical and manual handling, and facilitates Mailmark and address reading.

¹³ This facilitates Mailmark and address reading.

¹⁴ The only exception being polymers that are perforated for child safety purposes.

Category		Specification Requirement	M/R
		<ul style="list-style-type: none"> ○ The seal must be secured along the whole length of the seal and at each end. ○ The free edge of the seal must be less than 30mm deep. ○ When located on the front of the Large Letter, the seal must not be over the Delivery Address Block or the Mailmark Code. ○ The preferred location for the seal is on the back of the Large Letter. 	M H ¹⁵ M L ¹⁵

4. Polymer Envelope

Category		Specification Requirement	M/R
Construction	Material	• Polymer Large Letters must be made from a polymer film. e.g. polyethylene.	M
		• The film must be intact, undamaged and must not be punctured, split or torn ¹⁴ .	H ¹⁵
		• The film must be sufficiently robust to tolerate manual handling without tearing or splitting at the seals.	M
		• The film must be greater than 15 µm (15 microns) thick when measured at any point on the Large Letter.	M
Poly Env. Construction	Sealing	• The polymer envelope must be fully sealed.	M
		• Any glue sealed edges other than the opening flap must be sealed to the edge of the Large Letter.	M
		• The glue must not run out onto the outside of the mail item, or produce protruding mounds on the Large Letter.	M
		• The glue must be fully cured prior to presentation of the mailing to Royal Mail.	M
		• The glue must be stronger than the polymer.	M
		• The opening flap should be sealed to within 25mm of the envelope at the top and sides (see Figure 37).	H ⁸

5. Unwrapped (Open) Mail

Category		Specification Requirement	M/R
Design	General	Standard physical requirements for paper Large Letters apply (see section 3.1.1), with the addition of the following specific requirements.	M
	Specific Requirement	• The spine must always be on a long edge.	M
		• The spine must be glued or stapled. (Punch and bind bindings are not permitted).	M
		• All pages must be secured to the binding. Loose inserts are not permitted.	M
		• Inserts must not be attached to the mail. e.g. pens or product samples.	M
		• The cover of the mail must each have a paper weight of at least 50 gsm.	M
		• The pages of the booklet must have a paper weight of at least 50 gsm.	M
		• All pages (including the cover) must be of equal size.	M

6. Network Access Indicium and Customer Access Indicator

Indicia requirements are the same as those for Letters with the Access PPI, Stamp-Like Indicia and Digital Indicia being available.

7. Addressing

Addressing requirements are the same as those for Letters, except for the Delivery Address and return address locations as detailed below.

¹⁵ This ensures that the Large Letter is strong enough to withstand the rigours of mechanical handling.

Category		Specification Requirement	M/R
Delivery Address Location	General	The Delivery Address must not be printed in the border area (see Figure 42 and Figure 43) : <ul style="list-style-type: none"> Landscape - 40mm top, and 15mm to the left, right, and the bottom. Portrait - 40mm top, and 15mm to the left, right, and the bottom. 	M M
	Delivery Address Location – Polymer Wrap	<ul style="list-style-type: none"> The Delivery Address block may be printed on the Polymer, or may show through a 'Window' in the Polymer on an insert. 	M
		<ul style="list-style-type: none"> The Delivery Address block and the Mailmark code must not be printed over or beneath the longitudinal seal. 	M
		<ul style="list-style-type: none"> Where there is lateral movement of the insert within a Polymer Large Letter and the address is printed on the film, the Delivery Address block must not encroach into a border of 15mm from any edge. In addition, the amount of lateral movement is also required around the perimeter of the envelope where specific clear zones are not defined. i.e. Along the Bottom, Left, and Right edges. e.g. Where the Lateral Movement is 10mm, the required border is 15mm + 10mm = 25mm. 	M
Return Address Location	<p>The return address location is determined by the dimensions of the Large Letter:</p> <p><u>Large Letters up to 162mm x 229mm</u></p> <p>The return address must be located on the back of the Large Letter and centred within the top 40mm.</p> <p><u>Large Letters over 162mm x 229mm</u></p> <p>The return address must be located either:</p> <ul style="list-style-type: none"> on the back of the Large Letter and centred within the top 40mm. This is the preferred location as it avoids any confusion with the Delivery Address block (see Figure 13 of the Mailmark Letters Specification), or on the front of the Large Letter in the top left corner (with no element closer than 75mm to the right edge, and no closer than 12mm to the Delivery Address (see Figure 14 of the Mailmark Letters Specification). 	M M	

8. Mailmark Code

Mailmark requirements are the same as those for Letters except for the location as detailed below.

Category		Specification Requirement	M/R
Location – 2D & 4-State Codes		The Mailmark barcode must not be printed in the border area (see Figure 42 and Figure 43):	
		<ul style="list-style-type: none"> Landscape - 40mm top, and 15mm to the left, right, and the bottom where the Mailmark code is printed a paper or polymer envelope or where it is printed on an insert (carrier sheet) in a poly wrapped Large Letter. 	M
		<ul style="list-style-type: none"> Portrait - 40mm top, and 15mm to the left, right, and the bottom where the Mailmark code is printed a paper or polymer envelope or where it is printed on an insert (carrier sheet) in a poly wrapped Large Letter. 	M
		<ul style="list-style-type: none"> Where there is Lateral Movement of the Insert within a Polymer Large Letter and the address is printed on the film, if the outer is larger than the insert, the border clear zone increases because the excess film may fold under the insert during processing. The Mailmark Code must not encroach into a border of 15mm, plus the amount of excess poly (this is lateral insert movement) which can be a maximum of 30mm (e.g. 20mm excess poly plus the 15mm border clear zone requirement means that the barcode would be printed 35mm from the edge of the wrap). The code must not be printed over the edge of the envelope flap or under the longitudinal seal. 	M M

Mailmark Large Letters – Figures

1. Physical Requirement Figures

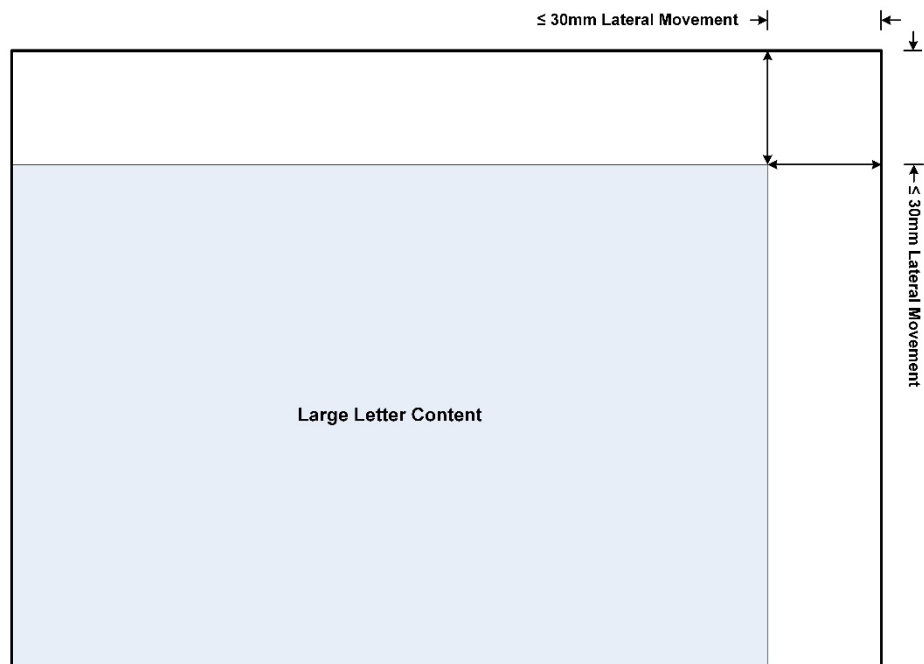


Figure 1 – Large Letter Lateral Movement (Not to Scale)

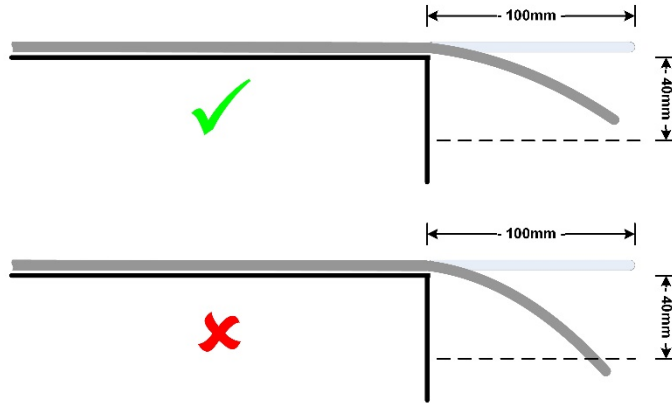


Figure 2 - Large Letter Flexibility (Not to Scale)

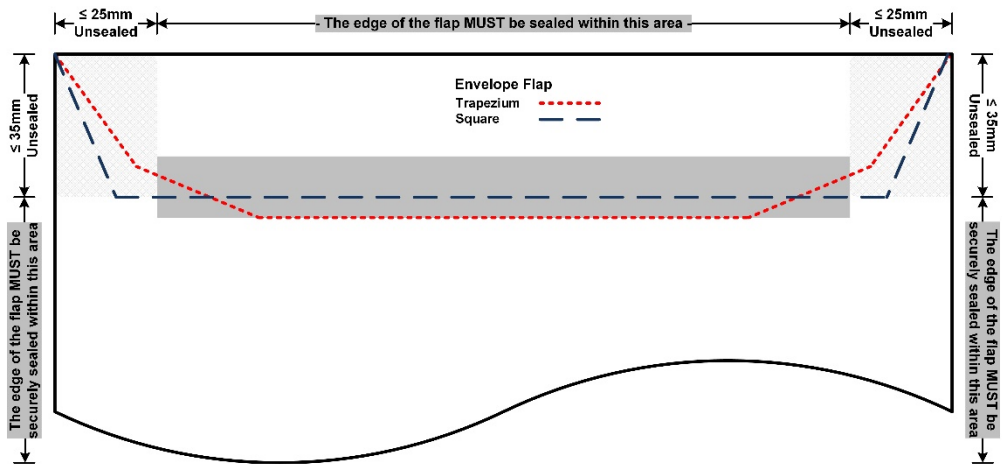


Figure 3 - Large Letter Sealing - Paper (Not to Scale)

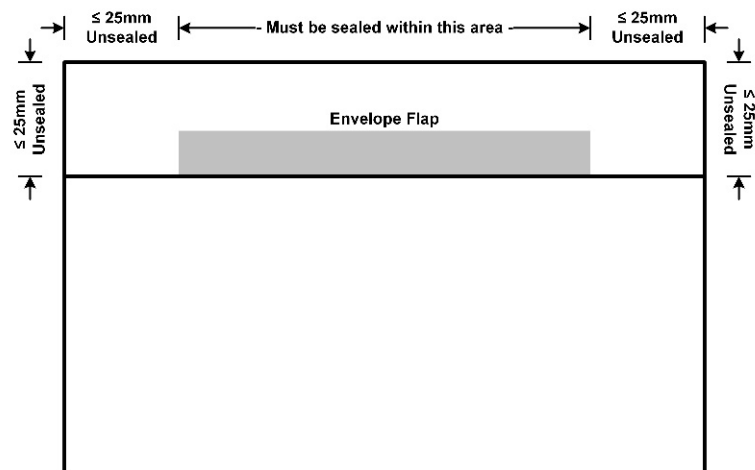


Figure 4 - Large Letter Sealing - Poly Envelope (Not to Scale)

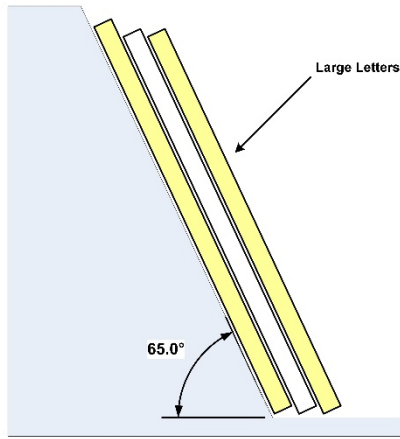


Figure 5 - Large Letter Separation - (Not to Scale)

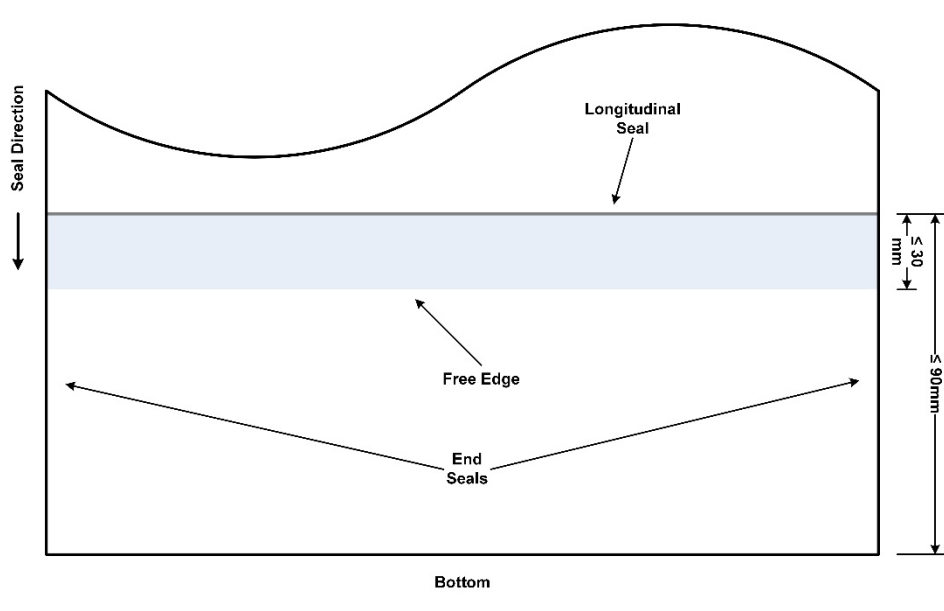


Figure 6 - Large Letter Longitudinal Seal - Poly Wrap (Not to Scale)

2.

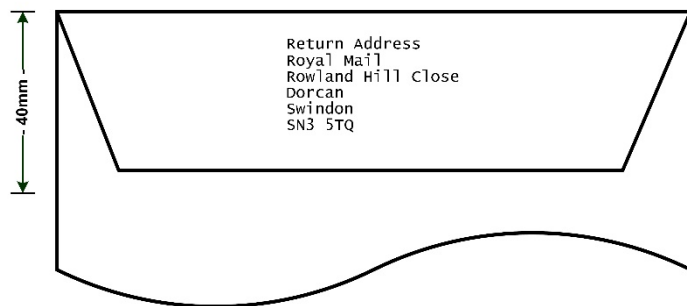


Figure 7 - Large Letter Return Address Preferred - Back (Not to Scale)

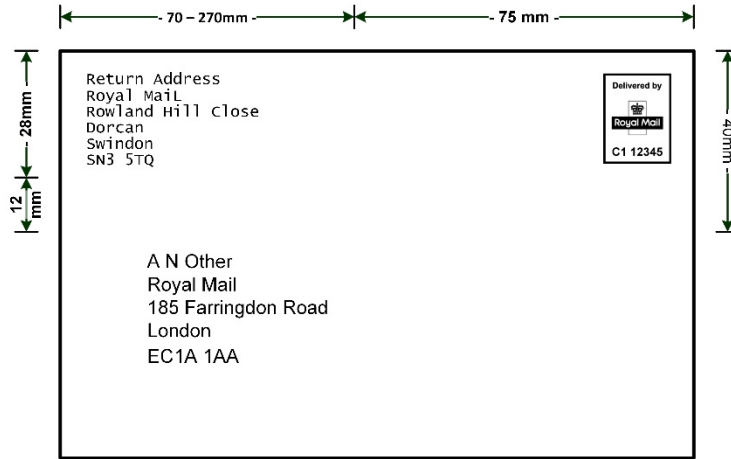


Figure 8 – Large Letter Return Address – Front Landscape Example (Not to Scale) Update

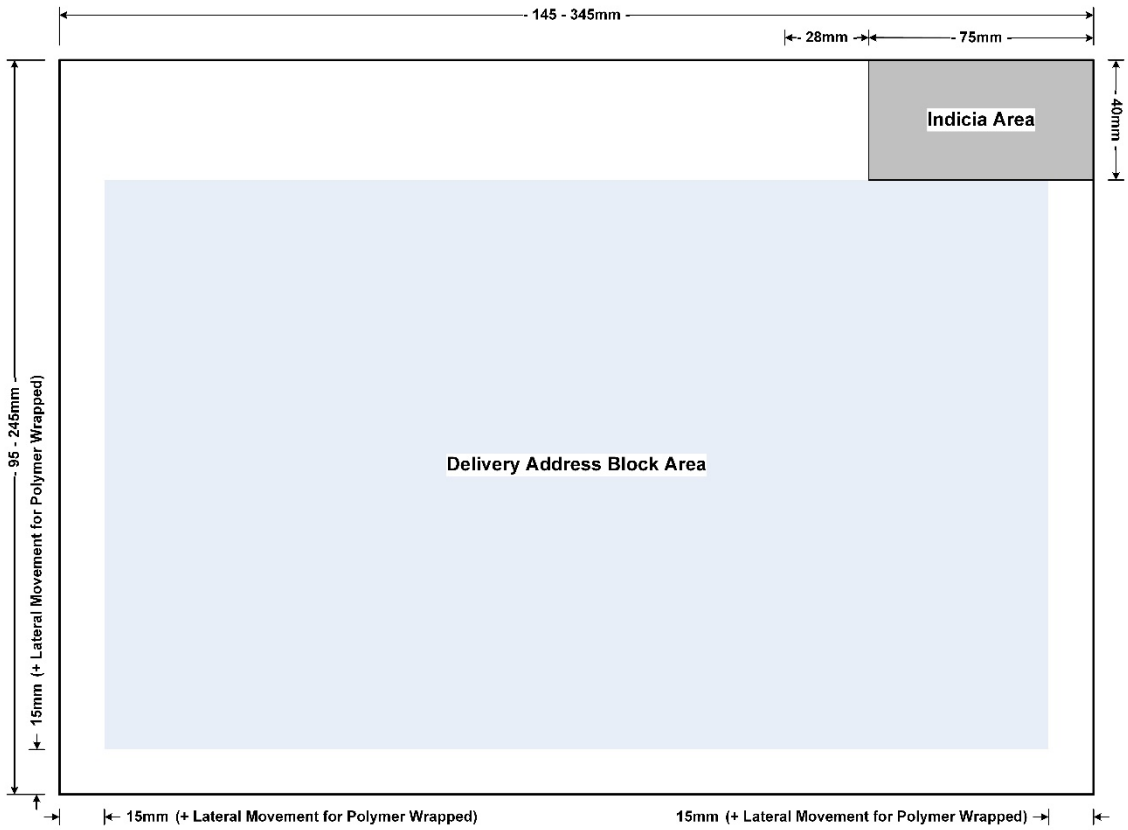


Figure 9 – Large Letter Clear Zones – Landscape (Not to Scale)

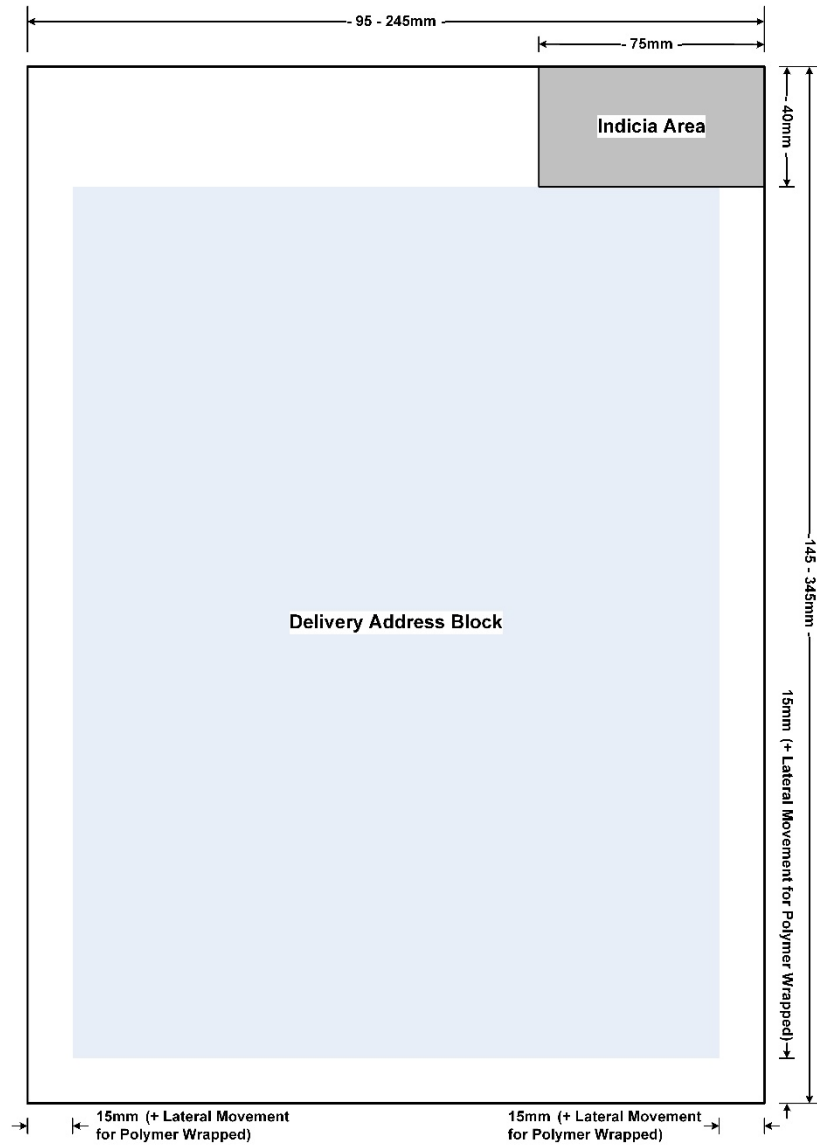


Figure 10 - Large Letter Clear Zones - Portrait (Not to Scale)