Proper print quality for shipping labels

Check out our tips!

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1. Print quality for shipping labels

Did you know that parcels are sometimes delayed as a result of poorly-printed shipping labels, because we are unable to scan the barcode? To prevent this, we ask that you pay close attention to the print quality of your labels. That way, we can apply smarter sorting to your parcels and deliver them faster. And achieve more satisfied customers as a result!

As a way to measure print quality, we assign the barcode on your shipping label a score from A through E (according to the ISO/ANSI scale). Did your barcodes earn a score of A or B? That's great! We will be able to scan your shipping labels properly. Did your barcodes earn a lower score? This means we will be unable to scan the labels properly, or at all. We will need to scan your label manually and create a new one. This puts your parcels at risk of being delayed.

Want to improve your print quality? Follow our easy tips to print perfect labels, every time. This helps us deliver your parcel faster and with no errors!

2. What does a good barcode look like?

The barcode shown here has an A score. Good to know: Not all barcodes have to be black.
Grey barcodes are often easier to scan.

3. Step-by-step plan for barcodes that can be read and scanned with ease

Follow these few easy steps to check whether your barcodes can be read and scanned with ease.

I. Pre-alert:
Check whether the shipment(s) are on time and a proper pre-alert has been submitted. Without a pre-alert, your parcel cannot be scanned.
Learn more about pre-alerts.

II. Resolution:
Check to make sure the resolution (dots per inch; DPI) of the label documents (ZPL, JPG, or PDF files) matches the resolution (DPI) of the printer and/or its current setting. Learn more about resolution.

*Note: do not use a Zebra printer to print PDF files!

III. Improving print quality
This document will tell you more about possible reasons why a barcode could be illegible or difficult to read. See whether you can improve your print quality using the suggested solutions. Learn more about the causes of low print quality.

IV. Need more help?
Feel free to contact us. We will be happy to provide further assistance.

4. Pre-alert of parcels
We require pre-alert of all parcels before they come into our possession. If there is no pre-alert, or it arrives too late, we will not have the correct information we need to deliver your parcel. It will then be impossible to scan your parcel. This is why you should always check first to make sure the pre-alerts for your parcel were received in good order. That way, you can be certain that a proper pre-alert was sent for your parcels:

1. The pre-alert channel (MijnPostNL, API, plug-in) will send a response telling you the pre-alert was received in good order.
2. When you look at the track & trace data, it shows that a pre-alert was made for a shipment.
   a. The MijnPostNL business portal has a track & trace module that allows you to search for a specific shipment.
      Learn more about track & trace.
   b. Your plug-in shows that a pre-alert was made for a shipment.
   c. In the track & trace data that is shared via de back-end (API), the scan code "A01" shows that a pre-alert was received.
3. In the MijnPostNL Business portal, under 'Insight into your shipping behaviour' you will find an overview of the trend regarding parcels without a pre-alert. You can also check the monthly invoice for each customer number to see how many parcels were not (or were improperly) notified in advance. Please contact your account manager if you have any questions about this.

5. Most common causes of barcodes that fail to scan

A. Heat

When labels are too hot during printing, there is a risk that the black stripes in the barcode will smudge in some places. This will make the stripes too wide, creating one or more additional widths of back and white stripes. Black stripes become wider and the white ones narrower. Because barcodes have a fixed number of widths for their black and white stripes, any additional width will negatively affect the legibility of the barcode.

Not all barcodes have to be black, grey is often easier to scan.

Example:

Solution:
Go to the printer settings and choose a lower print temperature. You can adjust the heat to zero or the lowest possible setting. Note: it is possible that even after you set the printer heat to "0", the labels will not get any lighter. In some cases, the print settings of the printer can override the print settings of the computer. You can solve this problem by updating the printer driver.

B. Speed

Is your label being printed too quickly? In that case, the heat may not be distributed properly. This will cause the label to be too light.

Solution:
Lower the print speed, so that there is a proper balance between speed and temperature.

Example:

C. Resolution

Does the printer have a different resolution than the resolution of the document to be printed? In that case, the printer has to "guess" what exactly it is printing. For example: a printer with a maximum resolution of 200 dots per inch (DPI) will have trouble managing a file with a resolution of 500 DPI. It is therefore better to avoid printing PDF files (often 500 DPI or more) using a Zebra printer (usually only 200-300 DPI). If you have a JPEG or ZPL file with the right resolution, on the other hand, a Zebra printer will do quite nicely for printing these.

> **Solution:**
> Make sure the dots per inch (DPI) value of the documents to be printed is as close as possible to the dots per inch (DPI) value of the printer. For example, a printer set to 200 DPI is the best choice to print label documents with a resolution of 200 DPI.

Example 1:

Example 2*:

*Note: a difference in resolution may result in wider black stripes in the barcode. The resulting barcode strongly resembles one with a problem caused by "Heat".

D. Dirty or damaged printer head

White streaks/spots through the barcode are a sign that the printer head is dirty or damaged.

Solution:
Clean or replace the printer/printer head. Cleaning the printer regularly prevents bits of paper, dust and toner from accumulating in the printer head. Many printers are equipped with a self-cleaning feature. Need help? Contact your printer supplier.

Example:
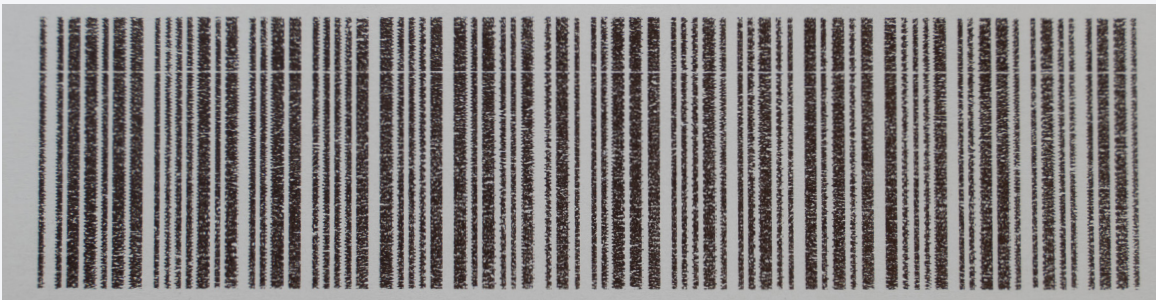
Maintenance

Printers are an essential part of the order-processing process. When a printer breaks down, orders cannot be shipped out. This is why regular maintenance is essential – especially for printers that spend a lot of time in operation. Annual maintenance prevents problems and ensures your printer stays in tip-top condition.

E. Glossy label sheets

Printing barcodes onto glossy label sheets can cause the ink to run. This is because ink takes longer to dry on a glossy surface. That means the barcode cannot be scanned immediately. Besides reducing ink adhesion, glossy surfaces also reflect light. When a label is scanned, reflected light can make the label illegible at that instant, even if the scan quality is high.

Solution:
Use a different kind of label sheets, i.e., non-glossy (matte) label sheets. An intermediate solution is to give the ink more time to dry. You can do this by reducing the print speed.

Example:
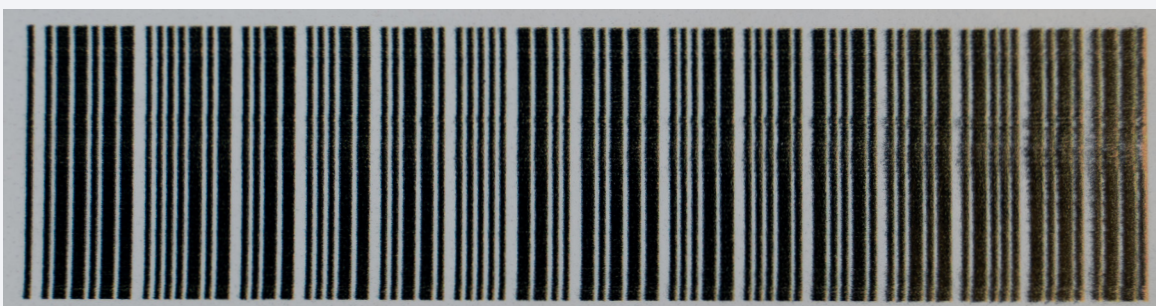
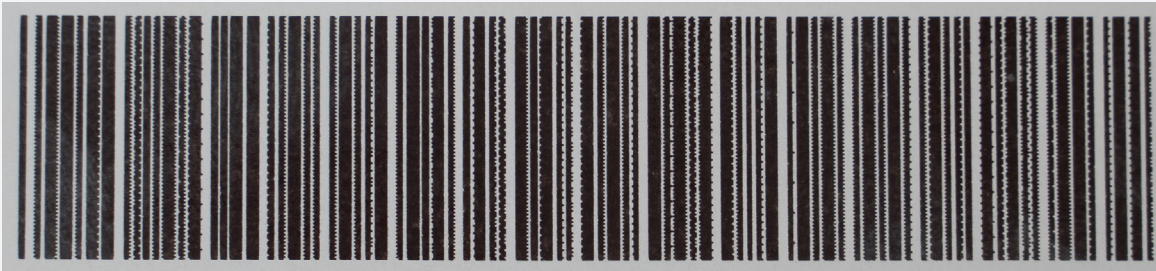The black stripes in the barcode are a raster pattern. This is caused by a specific printer setting called gridding or something similar.

Solution:
Turn off the printer setting for "gridding".

Example:

6. Help and advice

We are happy to help you make good-quality labels. To do so, we test how easy the labels are to scan and give you advice on how to improve your labels.

If you need additional help in connection with making labels that are easy to read and scan, our technical team is always standing by. E-mail them at **digitaleklantsupport@postnl.nl** and be sure to include the following details:

• Sharp photos of the labels
• Your customer number(s)
• The digital label-making method(s) you use (MijnPostNL, API, plug-in, other).
• The file type(s) of the labels being printed. If possible, include the DPI value
• The type(s) of printer with which the labels were printed. If possible, include the DPI setting used.

Something has gone wrong with pre-alerts (electronic manifest)
Is it clear that something has gone wrong with your pre-alert, but you are unsure of the exact nature of the problem? Our technical team is at your service. E-mail them at **digitaleklantsupport@postnl.nl**.
Along with your request, be sure to include the following:

• Your customer number(s)
• The pre-alert method(s) you use (MijnPostNL, API, plug-in, other).
• The shipping products that were used for the shipment. Specific product codes for offering more targeted assistance.
• An overview of barcodes for which no pre-alert was submitted.
• Several examples of pre-alerts.
• If possible, the time at which a pre-alert was submitted.

Good to know: While we are happy to help, in the end you yourself are responsible for the quality of the shipping labels you submit. We are regrettably unable to offer advice regarding label printers and cannot answer any technical questions about a specific printer brand or model. Your printer supplier, fulfilment party or IT integration partner can probably help you in that area.