

Barcode Print Checklist for Retail Products (Australian Market)

Work through and fill out this checklist for your product and print run. You can save the document as a PDF and attach it to your packaging specs or share with your printer.

Product:	
Date:	Checked by:

1. Barcode number & symbology

- Confirm you are using a valid GTIN issued via [Barcodes Australia](#) or other reputable barcode supplier so you know you own the number.
- Select correct symbology for retail Point-of-Sale (POS) use. For consumer-items scanned at POS, linear barcodes like [EAN-13](#), UPC-A, or GS1 DataBar must be used.
- If using or transitioning to a [2D barcode](#) (e.g., QR Code with GS1 Digital Link, GS1 DataMatrix) ensure dual-marking guidance is followed (linear + 2D) until 2D POS scanning is universal.
- Human-Readable Interpretation (HRI) (the numbers below the barcode) present, correctly formatted, clear, and not overlapping the barcode.

2. Size, dimensions & proportion

- Confirm the barcode is printed at or above the **minimum size** for the symbology and application (POS scanning). Check the requirements for [product](#) and [carton](#) codes. Bigger barcodes generally scan more reliably. If you have space, go above the minimum 80% size (approx 30x20mm). Note [maximum size is 200%](#) though.
- For small items, ensure the barcode is still readable; reduce only with caution. Ensure high quality print.
- For 2D barcodes: ensure the symbol size respects minimum x-dimension and quiet zones. For more information, please read our page on [2D Barcode Size](#). For products that are too small for a 2D barcode, a smaller DataMatrix may be accepted by retailers.

3. Quiet zones & clear space

- There is a clear quiet zone (no artwork, text, graphics) immediately before the first bar and after the last bar (for linear), or around the symbol (for 2D). The quiet zone is crucial. Otherwise, the barcode or QR code may not scan.
- Allow slightly more than the minimum quiet zone recommended (to allow for ink spread, mis-registration).
- On a retail trade item for POS: Ensure barcode is not too close to the edge of the packaging. The official recommendation is not closer than approx. 8 mm from nearest edge.

4. Contrast & colour

- Use high contrast: dark bars on a light background (preferably black bars on white background). Avoid light bars on a dark background.

- Avoid printing on reflective metallic or high gloss surfaces (risk of reflection interfering with scanning). On silver or metallic backgrounds, consider a white block behind the barcode to ensure contrast.
- Avoid transparent or semi-transparent backgrounds, or over-wrappers that may interfere with scanning.

5. Substrate / print method / environment

- Choose a suitable substrate (packaging material) that allows crisp printing and good contrast. Craft paper can absorb the ink into what should be white spaces (ink spread).
- Avoid very curved, highly textured, or unstable surfaces that cause distortion.
- Consider the print process: e.g., digital, flexo, offset, thermal transfer. Ensure the process can maintain the required x-dimension, bar widths, spacing, and quiet zones.
- Check for ink spread, dot gain, smudging, alignment issues—any of these degrade barcode readability.
- Ensure any varnish/over-coat or laminate over the barcode area does not distort or obscure the symbol.

6. Placement, orientation & packaging considerations

- Ensure the barcode is placed in a consistent, flat area of the packaging ideally on the back of the item (not on the lid or curved surface). Industry standards prefer placement in lower right quadrant of the back of packaging.
- Avoid placing the barcode too close to an edge, seams or fold because items are often grabbed by edges at checkout. We recommend at least 8 mm from edge.
- Orientation: For linear barcodes the “picket fence” orientation (bars vertical when the item stands normally) is preferred. For curved surfaces where picket-fence isn’t possible, ladder orientation may be used. For more information, please read our page on [‘How to Position Your Barcode on the Product’](#).
- For dual-marked items (linear + 2D) the 2D barcode (including its quiet zone) should be placed within a 50 mm radius of the linear barcode centre to ensure the scanning system perceives them as the same trade item.
- Ensure barcode is not positioned where packaging may bulge or distort (e.g., bags filled with powder, blister packs) so the scanning surface is flat and intact.

7. Space savers / small packaging / multiples

- If packaging is very small (e.g., lipstick, small sachet) check if the minimum barcode size still allows reliable scanning – if not, consider larger packaging, alternative packaging, or placement on multipack/outer.
- For multipacks, over-wrappers or banded items: ensure only one barcode with the correct GTIN is active for POS; inner units’ barcodes may need to be obscured if they carry a different GTIN.

- If placing multiple barcodes (e.g., inner and outer pack, different GTINs) ensure their placement does not lead to multiple beeps or confusion at POS (one beep per item).

8. 2D barcode considerations (if used)

- If using 2D barcode (e.g., QR Code/GS1 Digital Link or GS1 DataMatrix) ensure POS-capable scanning is considered (many older POS scanners may not decode 2D).
- Ensure the symbol meets GS1 specifications for magnification, quiet zones, print quality, human readable text (if required) for 2D. See [2D Barcode Size](#).
- Maintain placement guidelines relative to linear barcode (if dual-marked) as in section 6.
- Confirm encoding is correct (GTIN + any additional data elements) and human-readable interpretation where required.

9. Testing & verification

- After printing, test scanning across different POS scanners (fixed, hand-held) under typical retail lighting, checkout speed conditions.
- Consider using a barcode verifier service (Barcodes Australia offers a [verification service](#)) to validate symbol meets quality grades and GS1 standards.
- Check that barcodes print cleanly, no blurred bars/spaces, no ink smudges, no hairlines, no broken zones.
- Verify that the human readable number matches the encoded number.
- On packaging proofs, ensure barcode remains scannable after final packaging wrap, labels, shrink-wrap, etc.

10. Documentation & retailer requirements

- Ensure you meet the retailer packaging / barcode requirements: many major Australian retailers (Woolworths, Coles and Bunnings) require barcode verification and compliance with industry standards.
- Keep documentation of barcode specification, print proof/sign-off, test results for traceability.
- Communicate with your packaging supplier/printer about the barcode area: confirm magnitude, area tolerance, print conditions, and packaging design constraints.
- If you make changes to packaging (size, shape, colour, substrate) revisit the barcode print checklist to verify compliance again.

Barcodes Australia Top Tips

- ❖ Take your time and work with a reputable graphic designer and printer.
- ❖ Be extra careful and test if you are designing the layout yourself without professional help.
- ❖ Always test scan before you mass print
- ❖ Barcode labels can be used to cover any incorrect printing in a worst-case scenario! You wouldn't be the first person to need them!