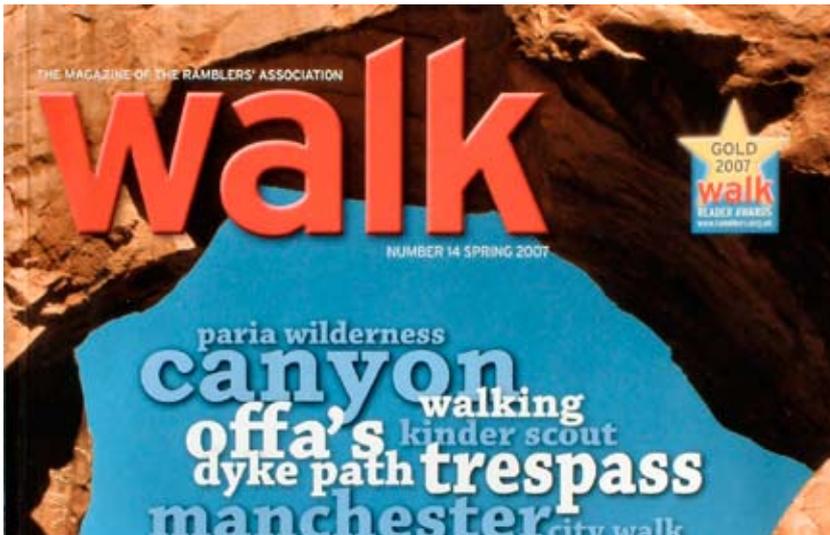


# Recycled-paper print trial delivers promising results



## Key Facts

- The publisher of Walk magazine carried out a trial print run using paper incorporating 80% recycled content (for the cover) and 50% recycled content (for the inside pages).
- Only limited adjustments were needed during printing to accommodate recycled stock.
- A consumer panel rated sample copies positively against a range of key criteria.
- Both the publisher and the printer were pleased with the copies of the magazine produced by the print trial.

**Walk is a quarterly magazine published by – and distributed free to members of – the Ramblers' Association, Britain's biggest walking charity. Incorporating scenic photographs, maps and a range of adverts promoting, for example, premium outdoor products, Walk has a glossy cover and a portrait format (28.2cm x 21cm). Each issue is usually around 96 pages long, plus a four-page ultra-violet (UV) varnished cover.**

Printing, which is subcontracted to Southernprint Ltd in Poole, uses a heat-set web offset (HSWO) process. The inside pages are produced on 75gsm NovaPress near-wood-free gloss coated paper. This replaced an 80gsm paper previously used, due to the need to meet the current target postage weight. Nevertheless, the 75gsm paper continues to ensure good opacity. The magazine's high-impact cover is produced on 130gsm Royal Roto wood-free gloss coated paper. Walk has a circulation of between 106,000 and 112,000.

*“A number of consumers preferred the recycled-paper version of the magazine”*

## Motivation to 'go recycled'

The core objective of the Ramblers' Association is to promote walking and improve conditions for all walkers. A significant proportion of its membership is committed to protecting the environment. Exploring the scope to switch production of Walk from non-recycled to recycled stock was therefore a natural step.

There is an ongoing need, however, for the Ramblers' Association to take into account the preferences of the organisations that advertise in the magazine and the economics of the publication's production. As long as switching to recycled paper did not impact negatively in either respect, the Association would consider approving such a change.

*“We believe our advertisers would find the recycled paper perfectly acceptable”*

**Denise Noble,  
the Ramblers’ Association**

### **The process involved**

The papers selected for the print trial are described below.

- **Inside pages:** 70gsm RePrint Matt (75gsm stock was not available). This paper contains a minimum 50% recycled fibre, plus a minimum 17.5% virgin fibre derived from responsibly managed forests certified in accordance with Forest Stewardship Council (FSC) criteria. Although a matt product, it was selected because no comparable glossy papers were available with this level of recycled content. The paper’s key characteristics include 90% ISO brightness, 12% TAPPI gloss and 91% ISO opacity.

It became clear during the trial that, despite its lower grammage, the RePrint Matt was at least as thick as the 75gsm paper it replaced. Differences in optical properties were also apparent, so laboratory tests at Pira International compared the papers. The tests confirmed that the recycled stock was marginally bulkier and slightly less bright and white than the NovaPress stock.

- **Cover:** 150gsm Greencoat Gloss (130gsm stock was not available). This paper contains 80% post-consumer fibre, plus 10% totally chlorine-free (TCF) virgin fibre and 10% elemental chlorine-free (ECF) virgin fibre. It has secured FSC certification as well as a National Association of Paper Merchants (NAPM) Recycled Paper Mark. The paper’s key characteristics include 96% ISO brightness, 66% TAPPI gloss and 89.5% ISO opacity.

The print trial at Southernprint Ltd used a MAN Roland Lithoman IV press for the inside pages and a MAN Roland R711PLV sheet-fed offset press for the covers. The latter machine includes an in-line reel sheeter deliberately by-passed in this trial. After printing on pre-cut sheets, the covers were sealed and UV varnish-coated. The inside pages (one 32-page section two-up and one 64-page section) were printed as run-ons after the standard runs, with reels of recycled paper spliced in. In total, 1000 copies of Walk were produced.

### **Production considerations**

After minor creasing problems at the first unit, the RePrint Matt paper ran well at the standard press speed of 38,000 impressions per hour. The stock proved much more absorbent than the standard paper, causing the automatic inking system to call immediately for more damp. Small adjustments to inking levels and register controls ensured achievement of good print quality within a few minutes.

Although web wave was slightly greater with the recycled stock, this effect was temporary. In addition, foredge growth was slightly inferior compared with the usual stock. No problems, however, arose with the perfect binding.

### **Results and perceptions**

The operators of the printing press were happy with the results, although they felt the illustrations on the inside pages were not as sharp as normal due mainly to the lower gloss of the recycled stock.

The publisher said the results exceeded their expectations. In particular, they thought the recycled-content cover was at least as good as the regular cover, with no significant difference in appearance between the recycled and virgin papers.



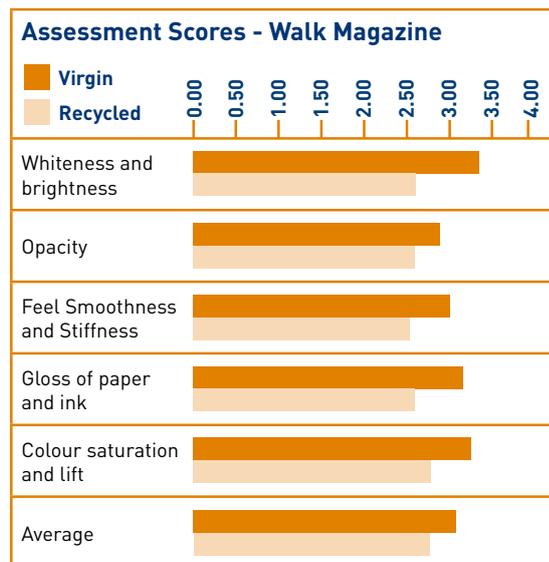
*“We didn’t expect such a good result”*

**Denise Noble,  
The Ramblers’ Association**

On the inside pages, the publisher rated the colour quality as good and did not perceive the reduction in gloss to be a major issue. In fact, they thought this reinforced the paper’s ‘ethical’ feel. While noting a barely perceptible reduction in image lift, they took the view that this would be acceptable to advertisers.

The magazine’s editor felt that the 70gsm RePrint Matt was not stiff enough compared with the 75gsm paper normally used. However, RePrint Matt is not available at 75gsm and choosing the 80gsm version would have unacceptable implications for postage costs.

A panel of consumers, comprised of active magazine purchasers and readers, examined trial samples alongside ‘regular’ samples of the magazine, without knowing which were which. The panel delivered marks out of four on a range of specific characteristics (whiteness and brightness; opacity; feel, smoothness and stiffness; gloss of paper and ink; and colour saturation and lift – see graph), as well as on the papers’ relative merits.



The number of panel members preferring the recycled samples almost equalled the number expressing a preference for the virgin samples. The following opinions were typical:

- “pretty much identical”;
- “matt [the recycled paper] feels more appropriate to a walking magazine”;
- “image quality [on the recycled paper] is not quite so good”; and
- “I prefer the more rustic feel [of the recycled paper]”.

The panel was also asked to quantify its overall impression of each paper. Out of a possible ten, the panel gave the recycled-paper version a score of 7.3 and the regular version a score of 8.2. A score of 7.5 had been defined before the exercise as equivalent to a ‘good overall impression’. The panel therefore had a slight preference for the virgin paper, but still rated the recycled paper as a good product.

**Conclusions**

The fact that the consumer panel experienced considerable difficulty in distinguishing the 50% recycled paper from the 100% virgin paper demonstrated that the two products have very similar characteristics.

This conclusion was reinforced by the fact that the publisher did not identify any conspicuous difference between the two versions of the magazine, although they did highlight some features of the recycled paper that they considered slightly inferior to those of the virgin paper.

**Summary**

The marked overall similarity between the 50% recycled-content paper used in this trial and the virgin stock it replaced indicate significant scope for publishers to consider using the recycled paper in appropriate high-quality magazines.

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