



Procuring office paper and publications
with recycled content: Guidance

The Big Picture





Scope and Objectives

This guidance document is aimed at:

- Any individual who has responsibility for specifying or purchasing office/copy paper or publication services on behalf of their organisation.
- Purchasers in both the private and public sectors.
- Anyone trying to increase the procurement of recycled paper.

The document provides practical information to help you to:

- Convince others of the importance of buying recycled.
- Understand what recycled paper products are available.
- Know what performance attributes to look for when you are specifying recycled paper and publication services.
- Select recycled paper products to suit your applications.
- Define contractual requirements/specifications.
- Get the best deal when you buy those products.
- Learn from good practice in other organisations.

Contents

Paper market basics

Section 1 – The reasons why buying recycled paper makes sense for you and your organisationPage 5

Section 2 – The different types of paper on the marketPage 13

Section 3 – The different types of claims and labels often found on paperPage 15

Procurement guidance

Section 4 – Buying office and copying paperPage 19

Section 5 – Procuring printed publicationsPage 29

Annexes

Annex A – Understanding a little more about paper and its supply chainPage 38

Annex B – Environmental claims, labels and marksPage 43

Annex C – Sources of further informationPage 47

Annex D – Glossary of termsPage 50

Introduction

Recycled papers are now available for a wide range of applications and perform as well as the like-for-like virgin papers. Specifying papers with a high recycled content helps to create end-market demand for the waste paper that you send for recycling, thus diverting it from landfill.

This guidance focuses on what to buy and how to buy:

- Some types and grades of paper are more readily available with a high recycled content. The document advises on how to select papers while keeping costs down.
- The key procurement strategy is to state your policy objective and requirements for recycled content upfront in your contract specification. Also, be prepared to shop around, buy in bulk, or obtain volume discounts through framework/consortium agreements - don't accept a high price premium.



1. Business case – why buy recycled?

The recycled paper market has evolved considerably over recent years. Increasing numbers of de-inking plants – the equipment used to treat waste paper and remove the old ink – have been built. At the same time, more extensive paper collection systems from offices and households have meant an increasing supply of recovered paper to feed into the paper mills. This part of the guidance highlights that:

- Recycled papers are widely available for a range of applications.
- The quality and performance attributes of recycled papers have improved significantly.
- Recycled paper will not necessarily cost you more.
- You can contribute towards sustainable development through procuring recycled paper.
- You can help meet your organisation’s policy commitments and demonstrate Corporate Social Responsibility.

Recycled papers are available for almost every application

Office & copy paper, envelopes, writing pads, flipcharts, company reports, brochures, magazines, leaflets, direct mail, continuous stationery, diaries, calendars, files and business cards can all be produced with recycled content.

“With three paper qualities – all at 100 per cent recycled, but with different waste make-ups – whatever the customer asks for, we can meet or exceed their requirements for recycled content.”

Andrew Broad, Paper Product Marketing Manager, Xerox Document Supplies.

This guidance document focuses on how you can procure recycled paper for office and copying purposes, and for your printed publication needs.

NOTE: Several paper merchants in the UK, such as Paperback, Antalis and Robert Horne, can provide bespoke recycled paper solutions for a wide range of applications. In addition, many of the stationery retailers, such as Guilbert and Lyreco, provide tailored environmental product ranges that incorporate papers with high recycled content. Many printers also now specialise in providing environmentally-driven services.

Quality and performance meet the same standards as virgin papers

There are some old myths about recycled papers, which do not take into account the tremendous progress achieved recently in terms of the quality and performance of such papers. It is a misconception to consider that recycled papers are dusty, tend to adsorb too much ink, make photocopiers/printers jam or do not present sufficient level of opacity.

The new reality, confirmed by users and printers, is that recycled papers can be found in most qualities and display excellent performance. Recycled papers range from clean bright whites to a range of palette colours. Generally, it is technically possible to use recycled paper for all applications. However, certain types of paper are not widely available as recycled. In addition, some very high grades of paper may not be produced in recycled versions, such as those for specialist low-volume applications e.g. art papers and photo-quality papers.

NOTE: Leading users and printers widely indicate there are no significant differences in runnability and strength characteristics, and little difference in appearance, between comparable grades of virgin and recycled paper (i.e. equally suited to the printing/copying process).

“Concerns about quality are generally expressed before having actually trialled the paper. Most concerns can be addressed through trial runs of recycled paper.”

John Sanderson, Head of Sustainable Development, UPM-Kymmene Ltd (paper producer).

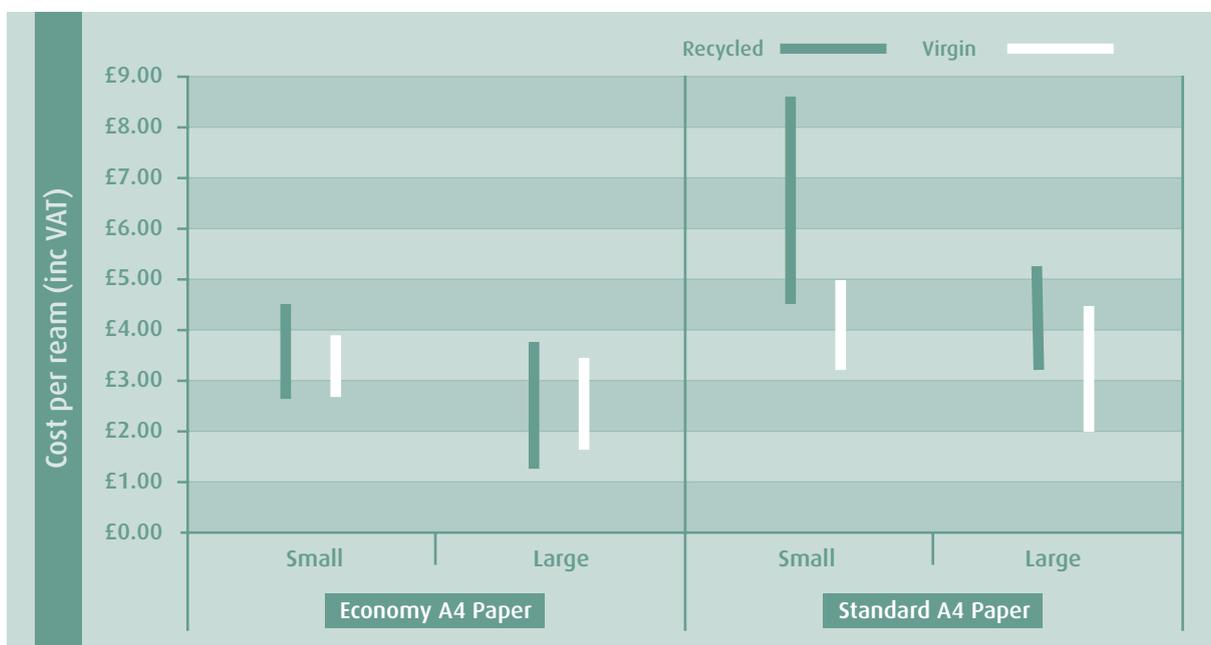
“We found that our desktop printers/photocopiers handle recycled better than virgin paper. Differences in appearance are generally only commented on when the papers are side by side. Therefore, where we use recycled we ensure the stock of virgin is exhausted prior to the change.”

John Willetts, Buyer, Severn Trent Water Ltd.

It needn't cost you more, and may cost you less

The greater number of de-inking plants, coupled with the evolution of sophisticated waste paper collection systems, has resulted in a situation where the costs for producing high quality recycled papers have decreased over recent years. At the same time, developments in the de-inking and paper pressing process have meant that the traditionally lower grade recycled papers – made from mixed domestic paper waste including newsprint – have improved significantly in quality. Moreover, increasing customer demands – especially from the larger UK paper merchants – and ‘smarter’ means of procurement by end-clients have resulted in the price differential for recycled paper falling over recent years. In some cases the price differential has been eradicated. However, it still remains in the majority of cases, especially when purchasing in smaller volumes (Figure 1). Notwithstanding this observation, as you move through the guidance document, case studies will highlight how excellent deals have been struck with paper merchants that either eradicate the price premium, or in some cases provide lower costs than for virgin counterparts. In later parts of this document, ideas are provided outlining how you can negotiate a better deal with new or existing suppliers.

Figure 1: Observed price differentials for recycled office and copy paper (up to 25 reams)



Source: Based on a limited number of stationery supplier catalogue prices.

Small: <10 Reams Large: 10 – 25 reams Bulk: >25 reams (see below)

Economy – 80 gsm, low-grade office use Standard – 80 gsm, multi-purpose

BULK PRICES will be lower than those shown for LARGE quantities. Bulk prices will be open to negotiation with paper merchants, and therefore have not been included in the price benchmark – our research unearthed a range of quotes. As a “spot” example, one local authority buying consortium has negotiated a price of £1.75 per ream for orders of 200+ reams (i.e. half a tonne) of standard A4 recycled paper – well below the prices typical at smaller quantities.

“Through a framework contract for printed publication paper, signed off with four different paper merchants, the DfT in collaboration with other Departments has achieved an average price advantage of 16-17% compared to market price.”

Andy Seal, Head of Branch, Print, Publishing and Distribution, Department for Transport.

“Doing Your Bit” for sustainable development

For the environment

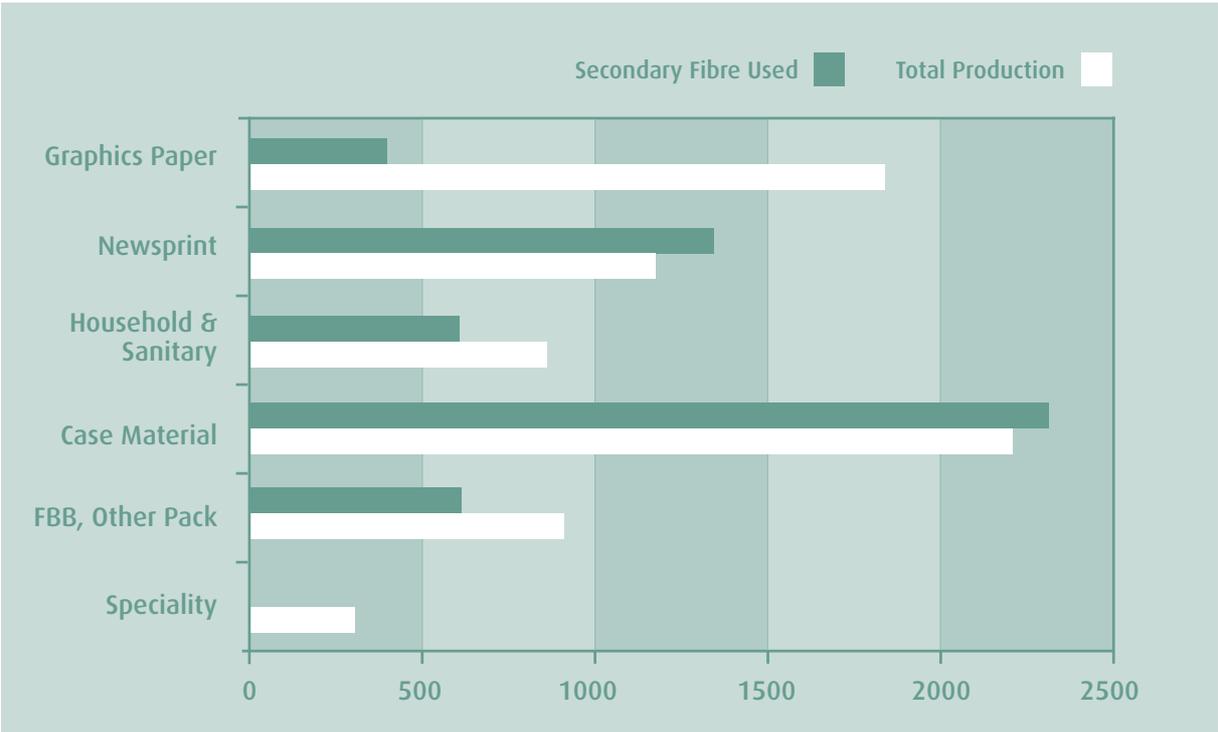
Using recycled paper diverts waste paper from entering landfills, and consequently helps in meeting national targets for waste recycling. Landfills are an important source of methane emissions, which are a potent contributor to global warming.

Work for the European Environment Agency has concluded that recycling of waste paper has a lower life-cycle environmental impact than the alternatives of landfill or incineration. In addition, paper recycling optimises the use of a valuable material and places less strain on global forest resources. Although these forests are increasingly managed in a sustainable way – and fibre from such forests will always be needed at the top-end of the hierarchy of paper grades – there is a need to reduce wastage by using more recycled content.

For example, whilst the recovery of paper has continued to increase, only 37 per cent of the total paper consumed in the UK in 2001 was made from recycled waste paper, mostly newsprint (source: Defra e-Digest of Environmental Statistics, February 2004). Consequently, there is still a major potential for increasing the use of recycled paper.

Moreover, whilst many organisations perceive themselves as acting responsibly by sending their waste paper for recycling, recycling will only be viable if end-markets are created for the products made from recovered waste paper, i.e. closing the recycled paper loop. This is especially true for graphics paper where utilisation of recovered fibre as an input to paper manufacture remains low relative to total production output, as shown in the graph below (Figure 2).

Figure 2: Fibre utilisation in the UK for different types of paper production



Source: WRAP ‘UK paper mills – review of current recycled paper usage’, March 2002.

And for society

In sustainable development terms, buying recycled has a strategic importance. Not only does it promote resource efficiency and reduce the use of virgin natural resources, but it yields social benefits such as local economic activity and jobs – thus delivering economic, social and environmental benefits simultaneously.

CASE STUDY: M-Real's New Thames Mill

The New Thames mill in Kent has provided a market for thousands of tonnes of office papers recovered in London and the South East, has secured jobs in the mill, in recovery and collection operations, and has diverted many thousands of tonnes of paper from the landfill sites in the South East. In terms of innovation, it is probably the largest de-inking system integrated with office paper production anywhere in the world, and produces a product with quality to match the best in the world.

Support your organisation's environmental/sustainability policy

Most large organisations in the private sector, and almost all public sector bodies in the UK, have an environmental policy. Buying recycled paper as well as requiring recycled paper for reprographic and publication services is a quick and easy way of supporting that policy.

CASE STUDY: The Co-operative Bank

In its Partnership Report 2002, the Co-operative Bank notes that:

'Using recycled paper is considered an efficient use of resources and protects old growth forests from logging. When compared with virgin fibre, the use of recycled paper substantially reduces water consumption, energy use, air pollution and water pollution... While recognising that virgin pulp must enter the supply chain at some point, the Co-operative Bank strongly supports the idea of using recycled products wherever feasible... For the past five years, the Bank has been seeking to use the most ecologically-sound paper available for the majority of our activities. We define this as totally chlorine-free and 100% recycled, with a large proportion of post-consumer waste.'

The Bank uses the volume of recycled paper as one of its ecological sustainability indicators.



Public sector drivers

For procurement professionals in the public sector there are additional policy drivers to encourage the buying of recycled papers:

LGA-ODPM National Procurement Strategy for Local Government in England

The National Procurement Strategy sets out how local government should set about improving procurement. It states that by 2004 all local authorities should build sustainability into their procurement strategies, processes and contracts, and that all authorities should use their buying power to stimulate innovation, including “creating markets for recycled materials”.

Achieving Best Value

The Government’s circular on Best Value and Performance Improvement (July 2002) states that sustainable development is fundamental to the Best Value regime. Procurement is a key mechanism for improving local services and achieving Best Value.

In England, the proposal from the Audit Commission for Comprehensive Performance Assessment from 2005 would lead to Councils being assessed on how resources (such as procurement systems) contribute to the delivery of national and local priorities. These priorities include Sustainable Communities.

In Scotland, the Local Government in Scotland Act 2003, Chapter 7, says a local authority which secures Best Value will be able to demonstrate “a contribution to sustainable development”.

Contributing to Sustainable Development globally

The Plan of Implementation from the 2002 World Summit on Sustainable Development states that Councils should promote public procurement policies that encourage development and diffusion of environmentally sound goods, works and services.

Meeting Government commitments on sustainability

Whitehall Departments and their Executive Agencies have committed to specifying minimum levels of recycled content in copying paper and paper for printed publications. These requirements will be embodied in the Framework for Sustainable Development on the Government Estate, and are listed as environmental “Quick Wins” on the OGCbuying.solutions web site.

‘Wise about Waste: The National Waste Strategy for Wales’ states that “public sector bodies should, where practicable, purchase recycled products such as paper and printed products”.

The Scottish Executive’s Greening Government policy is to ensure continuous environmental improvement by reducing the impact of its operations on the environment. The Executive adopted a specific target to increase the share of recycled paper for general use to 90% by March 2003.

The Northern Ireland Executive in its public procurement policy recognizes that economic, social and environmental strategies should be closely integrated into procurement policy. The Executive is yet to publish a formal environmental procurement policy, largely as a result of suspension over recent years.

Local authority policies

"...favour goods that are: designed to be re-used, made of recycled materials and durable..." Croydon Council

"...reduce waste through re-use and recycling and by using refurbished and recycled products and materials, where such alternatives are available..." Islington Council

"... purchase less environmentally damaging and recycled products, subject to cost and quality considerations..." Wandsworth Council

The following examples show how central and local government apply policy requirements when procuring paper:

CASE STUDY: NHS Purchasing and Supply Agency

The NHS Purchasing and Supply Agency's environmental purchasing policy (applicable to paper purchased for the Agency's in-house use) sets the following requirements for paper, in line with commitments made by Whitehall departments:

- Copier paper: 100% recycled content, with a minimum 75% post-consumer waste
- Paper for printed publications: 60% minimum recycled content, of which 75% is from post-consumer waste

CASE STUDY: Scottish Executive; 'Greening the Government: Everyone can contribute'

In this policy statement, the Scottish Executive has committed to managing resources in a sustainable way, including in relation to paper:

- To ensure that all Executive staff purchase recycled copying paper containing 100% recycled content with a minimum of 75% post-consumer waste.

The Executive's electronic purchasing system makes these papers the default option. By ensuring demand in this way, the Executive's procurement team has been able to secure price parity through bulk purchasing.

CASE STUDY: Renfrewshire Council

Renfrewshire Council states in its purchasing policy that:

'The Council should where possible give preference to goods that include a percentage of recycled material or are 100% recycled provided that they are available, fit for the purpose and financially viable.'

In terms of procurement requirements for copying paper, the Environment Department has translated this guideline as:

'All photocopying paper can be obtained containing 100% recycled material, with a minimum of 25% of the recycled material being post-consumer waste.'

CASE STUDY: Leicester City Council

Alison Lea, Senior Environmental Consultant at Leicester City Council states that:

‘Leicester City Council has a corporate commitment to buy 100% recycled paper made from post-consumer waste.’

Consequently, Leicester City Council has used 100% recycled paper for many years, and any initial concerns have dissipated over time.

We hope you are now more convinced of the importance and viability of buying recycled papers for all your paper needs. The remainder of this guidance will provide you with practical advice and tips on what you can do to make this happen within your organisation.



2. Understanding paper

Many different types of paper are sold on the UK market. Each has its own characteristics and suitability to different applications. Recycled options are available in most cases.

What are the main types of paper?

Despite the range in quality and feel of different types of paper used in a wide range of everyday applications, they can all be generally classified into four main categories:

- Woodfree coated
- Woodfree uncoated
- Wood-containing (or mechanical) coated
- Wood-containing (or mechanical) uncoated.

The wood element does not refer to the presence of wood, but rather the way in which the pulp has been treated prior to manufacturing into paper. Woodfree papers are those that are made with chemically treated pulp, the chemicals being used to break down the lignin content of the raw material, usually wood in a pulp mill. These papers generally have a smooth look and feel. Wood-containing papers are those which contain an element of pulp generated via mechanical mashing of wood – and hence are also known as “mechanical” papers.

The coating refers to whether a top finish has been applied to the paper or not.

NOTE:

1. For office and copying applications, the overwhelming majority of paper is woodfree uncoated.
2. For printed publications, the full range of paper types is used depending on the desired look, feel and cost of the publication.

Annex A outlines more information on how paper is classified and used in different applications.

Are all these types of paper available in recycled?

Currently only a small proportion (probably around 10%) of the 4.8 million tonnes of graphics paper (office & copying paper and paper for printed publications) consumed in the UK contains recycled fibre. Notwithstanding this low uptake, a wide range of different paper products are now available with recycled content. This is particularly true for the major graphics paper applications such as A3 and A4 printing and copying. But some very high grades of paper may not be available currently in recycled grades.

Sections 4 and 5 provide purchasers with tools to identify whether a recycled paper exists for their particular office or printed publication need, along with some tips on how to shift towards greater use of recycled paper.



3. Understanding claims and labels on paper

What do the different environmental claims and labels on paper all mean?

A plethora of technical terms, labels and standards are often used to describe or characterise the environmental impact of paper. This section of the guidance will help you to understand the relevance of these to your purchasing decision, and what they tell you (or don't tell you) about the environmental impact of the paper you are buying.

If you would like to find out more information about technical paper terms, a glossary covering many of these issues is provided in Annex D.

Some definitions

What are the main types of recovered paper?

Post-consumer waste is the paper recovered from our homes and offices. (It does not include printer returns or mill broke.) Post-consumer materials are finished products that have served their useful lives and would otherwise end up in a landfill or incinerator.

Pre-consumer waste includes: converting scrap (essentially scrap from all processes occurring once the paper has left the mill, e.g. printing, cutting and box making); newsstand returns and printers' overruns; obsolete inventory from mills, printers, and other sources; and also any damaged stock. Some of this waste requires de-inking.

NOTE:

1. Total recycled content may include pre- and/or post-consumer materials. From an environmental perspective, the goal is to get both types of material out of the waste stream. As demand for recycled content increases, the percentage of post-consumer input will increase.
2. Requirements for pre- and post-consumer recycled content reward paper manufacturers that have made investments to expand the recycling infrastructure (e.g. by building new de-inking facilities).
3. Some paper mills use a less rigorous definition of post-consumer waste that includes some elements classified here as pre-consumer waste.

Mill broke is scrap generated in a mill prior to the completion of the papermaking process and usually used in-house. It is therefore not regarded as "genuine waste". It has been used by paper makers for many years.

Bleaching method

TCF: This indicates that the pulp used in paper was produced without the use of any chlorine or related bleaching chemical. In other words it is Totally Chlorine Free. Chemicals that may have been used include ozone, oxygen and hydrogen peroxide. Most of the world's TCF pulp mills are in Scandinavia – though not all pulp mills in Scandinavia are TCF. It is possible to switch between these bleaching methods to produce different pulp grades.

ECF: This is used to denote that the pulp used in paper production was produced without the use of chlorine gas, or any other compound that contains or releases elemental chlorine, and hence the term Elemental Chlorine Free. Bleaching chemicals such as chlorine dioxide may have been used, usually in combination with oxygen and/or hydrogen peroxide or similar. The process can generate chlorinated by-products that have an adverse environmental impact, if untreated. This method has been widely adopted in North America.

Environmental claims, labels and marks

The following Table summarises the information available on different environmental claims and labels in relation to paper. Further detail on each of the claims and labels is provided in Annex B.

Type	Name	Application	Quantitative recycled content target?
Eco-label	 EU Eco-label	Copying and graphic paper	No
	 German Blue Angel	Graphic paper up to 170 gsm and copying paper	Yes – 100% waste paper content (pre- and post-consumer)
	 Nordic Swan	Paper products and printed matters	No
Environmental Product Declaration (EPD)	Paper Profile	All paper	No, but may be indicated in the EPD
	Environmental Profile Data Sheet for pulp and paper	All paper	No, but may be indicated in the EPD
Recycling Mark or Symbol	 Mobius Loop	All paper	Only one out of two versions of the mark indicates percentage of recycled content
	 NAPM (National Association of Paper Merchants)	All paper	75% of “genuine waste” (pre- and post-consumer)
	Green Seal Criteria Coated Printing Paper	Coated printing paper	10% post-consumer material
	Eugropa Recycled Mark	Not used any more	
Forest Certification Scheme	 FSC (Forest Stewardship Council)	Wood component in paper	Under development. Paper with FSC logo may or may not contain recycled fibre
	 PEFC (Programme for the Endorsement of Forest Certification schemes)	Wood component in paper	Not relevant
Environmental Management System (EMS)	ISO14001/EMAS	Paper manufacturers production process	Not relevant



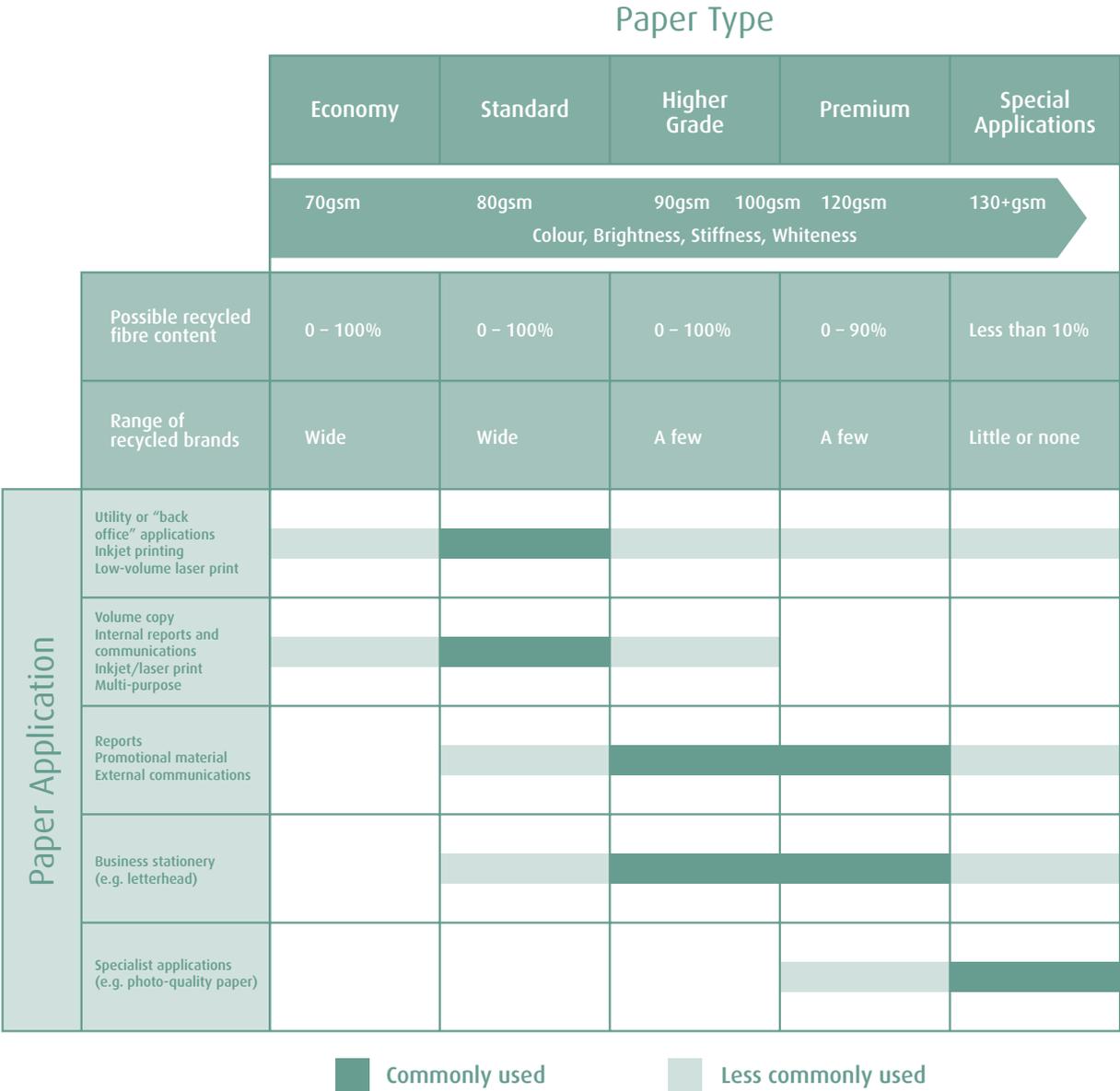


4. Buying office and copying paper

Is there a recycled paper that meets your needs?

It is more than likely that a recycled paper will be available to satisfy the variety of your office/copy paper needs, whoever you are currently buying from – a paper producer, a distributor/merchant or a retailer. The matrix below can assist you in your purchasing decisions for different types of office and copying paper, by helping to identify whether it is feasible to request recycled content.

Matrix of indicative paper types used for a range of generic office/copying paper applications



How to use the matrix

The matrix lists the applications for office and copying paper down the left-hand side. Across the top are the typical descriptions used by retailers for the relevant papers/products. (The gsm value, i.e. grams per square metre, indicates the weight and hence thickness of the paper.) The horizontal bands show how the various applications map against the types of paper, with a solid band showing the types commonly used for that application, and a shaded

band showing types used less commonly. This is just for guidance, as there is significant scope for switching between paper types for any individual application.

Reading across under the paper types allows the user to assess the recycled option for their particular application – identifying the possible recycled fibre content, and the likelihood of finding a brand of recycled paper. The actual recycled content of an individual brand may be lower than the possible content for that paper type, particularly towards the right of the matrix. Recycled fibre content can be up to 100% in economy, standard and higher grade papers, but less than 10% in special applications. Post-consumer fibre content is typically less than the total recycled content.

Guide to office and copying paper types:

“Economy” paper will be used for low-volume printing for in-house work, such as notes and internal memos. It may also be used for applications such as factory labels and internal transfer docketts. Typically these will be low-grade papers in the 70 or 80 gsm range. Some products/brands may not be suitable for certain applications such as colour laser printing. There is significant scope for using a recycled paper in this segment.

“Standard” will be for multi-purpose use in an office, such as laser printing and photocopying, and will be suitable for some report applications for internal and external communications. Typically, multi-purpose papers are in the 80-90 gsm range. The number and quality of recycled paper grades in this category is quite wide, and buyers are advised to try samples of paper prior to committing to a particular brand. There is likely to be some overlap between economy and standard papers.

“Higher grade” tends to be used for heavier applications such as external communications, business stationery and letterhead. Again, there is significant variation in the types of paper in this segment. Typically these are 100 gsm papers. Some high quality recycled papers with 100% recycled content are available, but the range is fewer than in the lower grades. Some of these papers contain a watermark indicating ‘recycled’.

“Premium and Special Applications” – there are a few premium-grade papers on the market above 100 gsm containing recycled fibre. For high quality photo-finish papers, there is unlikely to be any recycled paper option.

Selecting a brand

Using the matrix set out above, you can see the extent of recycled products/brands available for each paper type. Through dialogue with your current provider you should be able to find out what’s available – and remember, you also have the option to switch supplier. All stationers and distributors typically offer a recycled office paper.

Get your supplier to explain what they include in their definition of recycled content – the NAPM definition of “genuine waste” may be a useful point of reference.

Note that if there is a price differential with virgin paper, it should only be small. Later in this Section, you will find guidance on how to get the best deal, and even achieve price parity.

NOTE: In all cases, because of the wide variation in the quality and types of recycled paper on the market, procurers are advised to sample a variety of papers for each of their specific needs prior to committing to a particular brand. Suppliers, merchants and retailers should all be able to provide you with a broad range of samples on request.

Industry journals such as Print Week and Print & Paper Focus often feature paper Buyers’ Guides containing tables of paper brands for office and copying paper. These outline a range of credentials for different brands of papers, including their recycled content.

Who can you buy from?

The downstream end of the paper supply chain involves a complex and diverse set of actors, ranging from independent paper distributors and merchants to various stationery suppliers.

Producers and their sales organisations

Major producers of office and copying paper include companies such as UPM, M-Real, Stora Enso, Steinbeis Temming, Arjo Wiggins, Norsk Skog and Curtis Fine Papers. Some of the organisations have UK-based sales operations; others are exporters to the UK via independent UK paper distributors/merchants such as Premier Paper, Antalis, Robert Horne, Howard Smith Paper, McNaughton Paper, Dixon & Roe, The Paper Company and Paperback. A number of companies will buy paper from producers and rebrand it with their own brand.

Distributors/Retailers

Distributors, merchants and retailers range from high-street and warehouse-type office supply retail chains to specialist business supply services. Increasingly, online stationery suppliers are being used by organisations for procuring office supplies, and many of the high-street retailers are introducing an online service in parallel to their front-of-house operations. Some of the major players include Robert Horne, Dixon & Roe, Antalis, Paperback, Guilbert/Niceday, Lyreco, Office World, Fenns, Viking, Xerox Office Supplies, Banner and UK Office Direct Limited. All of them offer recycled office and copier papers.

How should you specify your needs?

There are a number of ways for an organisation to purchase recycled copier paper for office use:

- Selecting a particular brand and supplier.
- Developing a framework contract containing performance-based specifications.
- Buying through a consortium or similar joint purchasing arrangement.
- Specifying the paper to be used in an out-sourced reprographics service.

NOTE: Specification and value for money in the public sector

The following guidance, taken from the OGC-Defra Joint Note on Environmental Issues in Purchasing, applies to procurement professionals in the public sector:

Contract **specification** is the key stage at which to consider environmental issues. This should not be confused with the **award** stage of the procurement process, when the policy requirement to achieve best value for money has to be satisfied. Thus a Government Department or local authority can choose to specify 100% recycled content, even where this might be more expensive than virgin paper. You must, however, achieve value for money in awarding the contract, i.e. selecting the bid offering the best combination of cost and quality to meet the 100% requirement. *(This is where procurement can deliver the efficiency savings targeted by the public sector – using its buying power more effectively to secure the keenest prices.)*

The environmental requirement itself must be subject to the normal public expenditure tests of need, affordability and cost-effectiveness. But if the requirement is set upfront in the specification, you do not face the dilemma of trading off price versus recycled content when evaluating tenders.

You CANNOT prescribe specific products, brands, makes etc., BUT provided the tender specification is non-discriminatory you can specify the following:

- Performance against functional requirements
- The materials which are to be used (e.g. paper shall have a certain percentage of post-consumer recycled material)
- The features of a production method, where they impact on performance characteristics
- That products must meet eco-label criteria, or equivalent (i.e. you must allow other forms of proof that the specification underlying an eco-label can be met, even where the actual eco-label has not been sought by the supplier).

You can specify your needs informally (when you are negotiating directly with your supplier) or formally by setting up written specifications. The key advice is to set your environmental requirements in the contract/tender specifications. There are several ways to go about specifying these requirements:

1. The first decision to be made is whether you will use an environmental label or equivalent performance as the sole criterion (see Section 3 on recognised environmental labels that include a recycled content). However, this may limit your market choices as only a few paper producers have gone through the certification process, and determining equivalence may take some effort. Moreover, there may not be a label that matches your requirements (e.g. 100% recycled content, with a minimum 50% post-consumer waste).
2. If you think using an environmental label will limit your field of choice too much, then you need to add specific clauses to your specifications. Some examples are given below, but here are a few tips to remember:
 - You may wish to show a preference for products with a stipulated level of pre- and/or post-consumer waste.
 - You can still use selected clauses from the eco-label criteria even if you are not asking for a labelled product.
 - Try not to specify a particular product or a particular supplier's product.
 - Use a preamble that specifies your policy, for example...

State your policy in the preamble:

It is the policy of..... to use recycled materials wherever practicable. Bidders able to supply products containing recycled materials which meet or exceed performance requirements are encouraged to offer them in bids and proposals.



Some examples of specifications that could be included in your contract/tender specifications are given below.

Example specification:

The tenderer should offer recycled items in respect of the following schedule wherever possible:

For office and copying paper ___% recycled fibre content

[You may wish to break this down into the following, using the matrix above to direct your decisions regarding recycled content.]

- Economy papers ___% recycled fibre content
- Standard office copy papers ___% recycled fibre content
- High grade papers ___% recycled fibre content
- Premium papers ___% recycled fibre content

Economy papers shall mean papers with characteristics of..., suitable for the following uses....

Standard papers shall mean papers with characteristics of..., suitable for the following uses....

High grade papers shall mean papers with characteristics of ..., suitable for the following uses....

Premium papers shall mean papers with characteristics of..., suitable for the following uses....

[Use your own internal practices to guide your descriptions for different applications, otherwise use the matrix or stationers' catalogues for this purpose.]

In respect of the above schedule, the tenderer should specify the percentage of recycled content (excluding mill broke) and the proportions that are pre-consumer waste or post-consumer waste. Please also state whether the papers have any eco-labels, such as NAPM, Blue Angel, or other environmental standard – or meet equivalent criteria (please specify).

CASE STUDY: Government “Quick Wins” tender specifications

In 2003, Central Government Departments committed to minimum environmental standards when purchasing certain “Quick Win” products. These standards include:

“For copying paper - 100% recycled content, minimum 75% post-consumer waste.”

These environmental requirements should be set upfront in the contract/tender specification – in preference to using recycled content as one of the various contract award criteria.

OGCbuying.solutions has set up a web site (www.sustainable-solutions.gov.uk) that enables public sector buyers to identify relevant products and then order them on-line from its E-commerce site, tapping into framework contracts set up by OGCs.

CASE STUDY: Environmental requirements in a tender document

The National Agreement for the Supply of Paper (Printing) for Higher Education Institutions – Tender Document:

Question 20 – Recycled paper items

Paper containing a substantial proportion of recycled material must be available for those who wish to use it. In the Table below, provide the required information about the range of recycled paper you would include in the Agreement.

Property	Item
Brand name	
Type of paper or card	
Gsm	
Micron, if appropriate	
% post-consumer waste content	
% pre-consumer waste	
% mill broke	
% virgin fibre	
Whiteness (CIE), where appropriate	
Smoothness (ml/min)	
Opacity (%)	
Moisture Content (%)	
Recommended for use with (copiers, printers, b/w, colour, etc.)	
Recommended for double-sided printing?	
Labels held (e.g. Blue Angel, NAPM, EUGROPA, etc.)	
Date label accreditation given	
Price per 1000 sheets: min. quantity 5 reams, next day delivery	
Price per 1000 sheets: min. quantity 100 reams, standard delivery	
Price per 1000 sheets: min. quantity 1 tonne, standard delivery	

Question 20 (a) – Increased demand for recycled paper

In the event that there is a significant increase in demand for recycled paper, in what time frame could you meet this demand? Also, should such demand be realised, at what point would price parity with existing papers be realised?

Specifying the use of recycled paper in an out-sourced reprographics service

If your company is using an out-sourced reprographics service, you can use the above specifications in your contract with the reprographic company. The same applies to supplies and services provided through a facilities management company.

Note: You will typically have less leverage to modify existing requirements within your contract with your current supplier, than when setting up a tender specification for a new service contract.

Strategies for switching to recycled and getting the best deal

Segmenting paper usage

Segmenting and quantifying your organisation's use of paper in different categories, such as those outlined in the matrix above, will allow you to get a feel for where different types of paper may be most appropriate.

By segmenting use, you will usually be able to increase the proportion of recycled paper your organisation consumes, particularly by splitting usage into front-of-house and back-of-house. For example, in back-of-house applications such as internal factory and office administration, using only limited amounts of paper for inkjet printing, an economy recycled paper may be most appropriate. It may also be that your organisation is using over-specified paper for multi-purpose back-of-house printing and copier use. The high grade recycled papers may then be reserved for front-of-house use e.g. external reports and letterhead.

By understanding how paper is used in your organisation, and targeting the specific uses more closely, you will not only be able to increase the recycled content of your total paper needs, but also potentially reduce any price premiums associated with recycled papers, and even reduce your overall paper costs.

And if you know the volumes used in each application/segment, you may be able to get a better deal, i.e. by strengthening your negotiating position for bulk ordering.

Shop around

During the preparation of this guide we have identified at least 20 brands of recycled copier paper, with most containing between 75-100% recycled content. Ask your current suppliers what they have available and if necessary be prepared to look around for a better deal. If there is a price differential, and this is not always the case, it should be significantly reduced at larger volumes (see Figure 1). It may be possible to get a better deal by buying paper direct from the distributor or direct sales organization than through a stationery supplier, e.g. for bulk delivery.

“We have relationships with several paper suppliers but because we don't hold any formal contractual relationships with any one merchant, we have the freedom to shop around for the best prices.”

“We currently purchase ECF, TCF or recycled papers on an 'as-and-when-needed' basis, resulting in us obtaining quotes from our merchants every couple of months. Usage is closely monitored which enables suppliers to give competitive quotes based on actuals.”

Wendy Beasley & Paul Lawson, Facilities Manager & Printing Supervisor, South Oxfordshire District Council.

Buy in larger volumes

Many organisations have reduced the price of recycled office papers to be competitive with that of virgin counterparts. This has been done through framework contracts guaranteeing a supplier larger volumes of sales. Economies of scale mean that the price charged per ream can be substantially reduced. Buying in larger volumes is easier through a framework contract or the setting up of a consortium.

Getting recycled paper through a framework contract

A framework contract is an agreement with a supplier to provide goods or services over an extended period of time. These types of contracts have a huge potential to provide the initiator with price discounts for buying in large volumes.

NOTE: It is advisable to establish 'volume breaks' in a framework contract, i.e. once an agreed threshold on the purchase volume of paper has been exceeded, the supplier offers a reduced price for any additional purchases.

Buying through a consortium

A consortium can be broadly defined as a mutual agreement between different procuring organisations to collaborate together to achieve joint benefits, generally taken to mean cost advantages. Setting up a consortium allows the purchasing power of the participating companies/departments to be combined in order to create economies through larger orders.

Consortia in the UK have been able to supply recycled office papers at the same price as, or in some cases cheaper than, virgin paper.

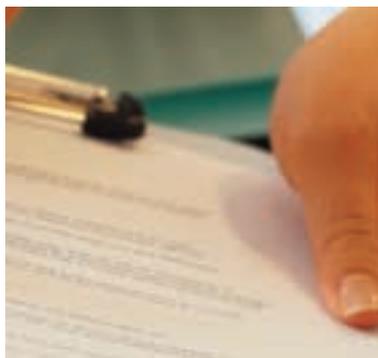
CASE STUDY: Authorities Buying Consortium (ABC)

A good example of consortium purchasing is ABC (Authorities Buying Consortium). During 2003, ABC introduced an economy recycled copying paper (Steinbeis Vision), which matched the price of the lowest-priced alternative virgin paper, and undercut the price of other branded virgin papers.

Note: For a current list of all UK local authority consortia, please visit the Society of Purchasing Officers (SOPO) website at www.sopo.org.

CASE STUDY: Savings on recycled paper by buying large volumes through a consortium

HM Customs in partnership with the Inland Revenue, HM Treasury and the Cabinet Office has awarded a five-year contract for recycled office paper, meeting the Government target of buying 100% recycled paper comprising at least 75% post-consumer waste for most uses. The contract achieved savings of at least 15% relative to previous stationery contracts. A volume discount structure has been negotiated into the deal that delivers further price reductions as volumes increase.







5. Procuring printed publications

Is there a recycled paper that meets your needs?

Did you know that recycled content paper is currently available for a wide variety of printed publications? The matrix below should help you identify whether it is feasible to specify recycled content (or increased recycled content) in the paper for the publication you require.

Matrix of indicative paper types used for a range of generic printed publications

		Paper Type			
		Woodfree Coated	Woodfree Uncoated	Wood-containing Coated	Wood-containing Uncoated
Likely recycled content		Less than 5%	0 – 20%	0 – 10%	0 – 50%
Possible recycled content		0 – 75%	0 – 100%	0 – 25%	0 – 100%
Printed publications	Magazines	Short-run sheet-fed magazines		Majority	Some low-grade publications
	Corporate reports	High quality publications	Some publications		
	Catalogues			LWC	Some SC-A, SC-B
	Directories				Largely SC-B/SC-C
	Brochures	High-end			Lower-end
	Newsletters		Majority	Some publications	
	Leaflets, inserts & direct mail	High-volume direct mail		Direct mail	Largely SC-B/SC-C

Commonly used
 Less commonly used

NOTE: LWC = lightweight coated paper; SC-A/B/C = supercalendered paper, grades A, B and C (See Annex A for more details)

How to use the matrix

The matrix above is designed as a starting point to facilitate your discussions with printers and publishers, and with other people buying publication services.

The matrix lists generic types of printed publication down the left hand side. Across the top are the typical descriptions used by paper suppliers/merchants for the relevant papers. The horizontal bands show how the types of publication map against types of paper, with a solid band showing the paper types more commonly used for that publication, and a shaded band showing types used less commonly.

There are opportunities for grade switching within individual categories of paper. For example, in the uncoated wood-containing category, it should be possible to switch from a SC-A grade (with low recycled fibre content) to a SC-B paper (likely to have higher recycled fibre content). Dependent on the publication, it should also be possible to switch between categories, for example, from a LWC grade to a SC-B, possibly via an intermediate step of SC-A.

NOTE: A grade switch is likely to need the printer to reassess inks used. Sometimes paper quality is blamed for poor print results, whereas a change in the type of ink might have resolved problems following a switch in the type of paper. This is an option to be discussed with your printer.

Reading across under the paper types allows the user to assess the recycled option for their particular application – what the likely recycled content will be, and the likelihood of finding a particular paper with a higher recycled fibre content.

Guide to types of paper for printed publications:

“Woodfree Coated” paper is generally used for very high quality magazine/report publications, posters, calendars and photo-finish quality printing paper because of its inherent smooth feel, high brightness and high opacity. Woodfree coated paper may sometimes be differentiated by coating method.

“Woodfree Uncoated” paper is typically used as office and copying paper in the 70-100 gsm (grams per square metre) basis weight range. Although woodfree uncoated papers are generally not used in large-scale printed publication applications, they are used in sheet-fed and web-offset press applications, for products such as text books, instruction manuals, road atlases and booklets. They may also be used for small-scale in-house publications such as newsletters printed on office/copy paper. Many graphic designers are moving towards the use of woodfree uncoated papers for certain printed publications such as company financial or environmental reports.

“Wood-containing Coated” papers in quality terms, fall between the high-end woodfree coated papers and the wood-containing supercalendered papers. They are typically differentiated depending on the coating weight, such as light-weight coated (LWC) or medium-weight coated (MWC). Typical applications include many monthly magazines, some mail order and store catalogues (e.g. Argos), high quality “in-house” magazines, and covers for some weekly magazines. It is worth noting that a number of LWC producers are increasing the recycled content of their papers.

“Wood-containing Uncoated” – typically supercalendered (SC) paper – will be of a lower quality than others, falling between newsprint and LWC coated grades. SC paper quality does vary and is measured on a sliding SC-A, SC-B, SC-C scale. In recent years, improvements in the supercalendering process have brought about the introduction of a SC-A+ grade, which offers a superior finish to its SC predecessors. Typical SC applications include weekly magazines, weekend supplements and inserts, sales brochures, junk mail and short-lived catalogues (issued several times a year)

Note: Paper industry technology is in constant progress. Consequently, some information in the matrix can easily become dated. For example, there are plans to build paper machines using 100% recycled fibre to produce LWC. We advise that you check on a regular basis the availability of recycled paper for different applications.

Who can you buy from?

As a procurer of printed publications, you may be purchasing your publications from:

- An in-house publications department which employs 3rd party printers.
- An external printer or publisher which serves large organisations. (You may or may not already provide them with guidance on the types of paper to use.) Some printers then use 3rd party design agencies to support them in preparing printed publications for end-clients.
- A 3rd party design agency employed by your organisation to produce published material. These agencies may independently procure printing services to produce publications for you.

Your organisation's purchasing of printed publications may be influenced or even managed by your corporate communications, marketing, and publications departments.

In some cases, if significant purchasing power can be exercised, then it may be possible to set up supply contracts with paper supplier(s)/merchant(s) for publications paper, which you subsequently specify to your printer.

How should you specify your need to printers/publishers/design agencies?

There are many varieties of printing and publication papers, tailored for a wide variety of end-uses. In many cases, designers and printers will have one or two papers in mind when considering your printed publication needs, which may not necessarily include paper with high recycled content. It is strongly recommended that procurement professionals determine the performance characteristics of the paper they want, and the minimum recycled content target for that particular paper prior to opening discussions with their designer or printer. The matrix provides a powerful tool to facilitate this process.

NOTE: Specifying recycled in public sector procurement of printed publications

Key points from the OGC-Defra Joint Note on Environmental Issues in Purchasing – discussed previously in the context of copying paper – are:

Contract specification is the key stage at which to set environmental requirements. Thus a Government Department or local authority can choose to specify 60% recycled content, even where this might be more expensive than virgin paper. When awarding the contract, you demonstrate Best Value/value for money by selecting the bid offering the best combination of cost and quality to meet the 60% requirement.

You CANNOT prescribe specific products, brands, makes etc., BUT provided the tender specification is non-discriminatory you can specify the following:

- Performance against functional requirements
- The materials which are to be used (e.g. paper shall have a certain percentage of recycled content)
- The features of a production method, where they impact on performance characteristics
- That products must meet eco-label criteria, or equivalent (i.e. you must allow other forms of proof that the specification underlying an eco-label can be met, even where the actual eco-label has not been sought by the supplier).

Once you have a general idea of your quality requirements for your range of printed publications, there are several ways to go about specifying these requirements (also see below: 'Strategies for increasing recycled content'):

1. You as the client determine the paper type, including detail such as weight, coating and most importantly minimum recycled content to be used for each publication. (You may wish to discuss this in terms of paper grades as outlined in the matrix.) This method of purchase often requires seeking advice from either the printer or the designer.

2. You as the client set an outcome requirement based on the look and feel you want (for example Gloss, Silk, Wove and Laid) plus detail regarding a minimum recycled and/or post-consumer waste content, or even a simple statement of intent to print on recycled papers. This method of purchasing invites printers/designers to propose solutions.

“The high quality of recycled papers these days means that there should be no technical reasons why a paper with high recycled content can’t be used for any type of printed publication.”

Peter Horrocks, Paper Manager, Beacon Press.

See below for some tips on how to talk with printers and designers.

Setting up specifications in framework supply contracts

If you are a large-volume purchaser or in a consortium, and therefore able to leverage significant purchasing power, then you may wish to establish a supply contract with paper merchants for printing paper, and use this in your printing supply contract specification as in (1) above. Alternatively, you may wish to set specifications which your design agency or printer follow, as in (2) above, and allow them to find and supply the papers.

CASE STUDY: Defra, DTI and DfT lead the way in procuring publications with high recycled content

As the Government’s lead body on the Waste Strategy for England and also on sustainable development, the former DETR was keen to be seen to ‘walk the talk’ where recycled paper was concerned. Consequently, in 1999/00 it ran a collaborative tender with two other Central Government Departments, which resulted in a printing papers supply contract with four paper suppliers/merchants. The contract specified that:

- All uncoated paper must contain 100% recycled fibre content with 75% minimum post-consumer waste.
- All coated paper must contain a minimum of 75% recycled content with 80% minimum post-consumer waste.

(based on what was available at the time)

The use of recycled paper was subsequently made an integral component of contracts with printers. Printers were required to source paper directly from the four merchants for the various publications required.

A Government benchmarking exercise subsequently showed that Defra has achieved a 21% saving relative to market prices for the paper they use, and a net saving of 3.7% compared to the use of virgin papers. The framework contract for paper was initially set up to run for three years, and its success means Defra has plans to renew it on expiry.

By pooling demand, the three Departments have encouraged the merchants (Premier Paper, James McNaughton, Robert Horne and Howard Smith Paper) to hold larger stocks of recycled paper, making it more immediately available to Government and other users. The contract also requested the four merchants to look for additional recycled papers and pursue continual quality development – both objectives have been achieved.

CASE STUDY: Government “Quick Wins” tender specifications

In 2003, Central Government Departments committed to minimum environmental standards when purchasing certain “Quick Win” products. These standards include:

“Paper for printed publications – minimum 60% recycled content, of which 75% post-consumer waste.”

These environmental requirements should be set up upfront in the contract/tender specification – in preference to using recycled content as one of the various contract award criteria.

CASE STUDY: Scottish Parliament procurement of publications services

The Scottish Parliament’s Procurement Office has set up several contracts for printing and publishing. The tender specification made clear the Parliament’s environmental objectives:

“the contractor has to use best endeavourswhere possible to maximise the use of recycled content”,

“the contractor is required to provide paper comprising genuine post-consumer waste or virgin pulp from sustainably managed forests, produced using a chlorine-free process”.

Nevertheless, the specification still allowed each prospective tenderer to propose the papers most suitable to meet the specification.

The main print contract was awarded to Astron Document Services. After being selected, and in response to client policy, Astron successfully tested an 80gsm paper containing 100% post-consumer waste. This paper has now been adopted as their standard recycled paper for digital printing, not just for the Scottish Parliament contract, but throughout Astron’s operations when recycled paper is specified. The original paper proposed by Astron contained 100% ECF pulp with no recycled fibre. The alternative paper was introduced at no additional cost per printed page.

The Design & Print service providers, by comparison, use both recycled and sustainable virgin papers. The quotation for each individual print job will include an option for recycled content, identifying the cost and performance implications, so that the client can choose. The contract management process also requires a quarterly environmental report from each supplier, recording the use of different papers and advising on the availability of new papers.

In awarding contracts, the Procurement Office focused on the overall service level and price per printed page. The price of the paper itself was not a significant parameter, particularly for Design & Print where labour costs dominate. Therefore trading cost against recycled content was not a factor in contract award – the success lay in making the corporate objective explicit in the contract specification from the outset.

Setting up specifications for individual print jobs

In many organisations, printed publications are procured on a case-by-case basis by individual departments and teams. Where this is the case, it is important for the persons responsible to be proactive in establishing upfront the parameters that will guide the procurement process, such as paper grade, performance and quality, recycled content and post-consumer waste content. The matrix above will facilitate this process.

By being well-informed from the outset, the procurer is in a stronger position to handle any objections raised by printers or designers either in terms of availability of recycled papers for certain applications, or on any technical grounds. (See the tips provided below for dealing with designers and printers.)

NOTE: Where your organisation is actively pursuing a policy of using recycled paper for printed publications, you should try seeking advice from your environment team who may be able to share experiences gained in other departments.

CASE STUDY: Co-operative Bank Environment Team supports paper procurement process across departments

Liz Thompson, Environment Advisor at the Co-operative Bank has been supporting the various functions within the organisation to try and ensure that they are purchasing papers which are compliant with the bank's paper policy and Ecological Mission Statement. As a result, the Co-operative Bank has worked with its main cheque supplier and its paper supplier to introduce a proportion of recycled paper to its cheque and credit paper. The Bank's financial statements and sustainability reports have been produced on recycled and totally chlorine free paper for a number of years.

Contract management

Once a framework contract has been set up, it is recommended to monitor the execution of the contract to ensure that quantities and compositions of recycled paper are being used as specified. This can be done through the use of Performance Indicators for recycled content as part of contract management or through performance returns.

CASE STUDY: Defra contract management

For individual printed publications, Defra only deals directly with the printers and not the paper suppliers, as the latter are already covered by a framework contract (see above). Therefore, the contract with paper suppliers stipulates monthly performance returns that review their deliveries to the printers, enabling any issues to be identified. These returns are discussed with the paper suppliers at regular quarterly contract meetings.

Things to remember whilst working with a printer or designer

Talking with your printer

1. Clearly state your intention to increase use of recycled papers wherever possible.
2. Use the matrix in this guide to inform yourself of which types of paper are available with a recycled content and share this information with your printer.
3. Listen to your printer. Different papers exhibit differences in performance and printability. Some printers might first want to test certain papers with particular ink. Printers can also help you select papers based on how they will be used (e.g. whether they will be folded, die-cut, or made into self-mailers).
4. If your printer has an account with a specific paper merchant who does not provide the recycled paper you have specified, you should suggest looking at equivalent papers on the market.
5. Involve your graphic designer in assisting you to make your choice.

“Where a customer specifies that they require recycled paper for their printed publication, we work with them to understand their needs without compromising on quality and appearance. In all cases we are able to find a solution which incorporates paper with a high post-consumer waste content.”

Kevin Smith, Account Manager, Beacon Press.

Talking with your graphic designer

1. Clearly state your intention to increase use of recycled papers wherever possible. If you have a paper procurement policy, share this with the designer so you can work together on meeting its requirements.
2. Clearly state your performance characteristics in terms of the look (gloss, silk, wove or laid) and weight for each publication type. This will help a designer find a recycled content paper that suits your needs. Be open to your designer offering you alternative papers that they think will do the job – responding to your stated policy to increase recycled content.
3. Use the matrix in this guide to inform yourself of which types of paper are available with a recycled content and share this information with your designer.
4. Involve the printer and paper merchant in assisting you to make your choice.
5. Using these papers does not necessarily mean that you will have less choice or that they will be more expensive.
6. There are many examples of printers who are using recycled grades with no loss of performance or quality.

“Recycled papers have come a long way from what they used to be. When we do use them, we cannot tell the difference.”

Claire Lock, Design Studios.

Generally, it is technically possible to use recycled paper for all applications. However, certain types of paper are not available with high recycled fibre content (see previous matrix for reference). Get your printer/designer to explain what they include in their definition of recycled content – the NAPM definition of “genuine waste” may be a useful point of reference.

NOTE: Industry journals such as Print Week and Print & Paper Focus often feature paper Buyers Guides containing tables of paper brands for printed publications. These outline a range of credentials for different brands of paper, including their recycled content.

Strategies for increasing recycled content

If your organisation is determined to increase the recycled content of the paper used for printed publications, there are some strategies that can be used to achieve this aim: either switching the source paper used to print the publication, or switching to a different grade of paper that has a higher recycled content.

Source switching

If performance and quality criteria mean you are bound to the use of one particular paper type, then your strategy should focus on maximising the recycled content in that particular paper. Using the matrix provided, you can get an indication of the potential maximum recycled content. Next, ask your printer or designer to seek out a paper which best meets this maximum potential, or if you are setting up a framework agreement with a paper supplier, ask them to put forward paper options that fulfil this criterion.

Grade switching

If your performance and quality needs are more flexible, then it is worth considering switching paper grades in order to maximise the recycled and/or post-consumer waste content. As shown in the matrix, some grades inherently are more accommodating towards higher recycled content than others. A typical example may be switching from a lightweight coated (LWC) paper to a SC-A paper, or from a woodfree coated to woodfree uncoated. Switching to a lower grade of SC paper is also likely to increase the opportunity for achieving 100% recycled content.

NOTE: Grade switching can potentially yield significant cost savings, particularly moving from coated to uncoated papers, and from woodfree to wood-containing grades.



6. Points to remember

Why buy recycled?

- Recycled papers are available for a wide range of applications for both office and copying use and for printed publications.
- Recycled papers perform as well as their virgin counterparts in like-for-like comparisons across different applications, and you don't necessarily have to pay any price premium.
- Purchasing recycled paper is important for resource efficiency and sustainable consumption: it helps to close the recycling loop by creating end-market demand for waste paper that your organisation may be sending for recycling, thus diverting waste paper from landfill sites.

What to buy?

- To maximise resource efficiency, look for papers with a high level of recycled content.
- Some types and grades of paper are more readily available with a high recycled content. By selecting appropriate papers for each application – such as economy-grade for in-house administration – you could increase recycled content and cut costs at the same time.

How to buy?

- Clearly state upfront your policy objective to maximise the use of recycled content, and set contract specifications for recycled content.
- Ask your paper suppliers, printers and designers to propose solutions meeting your requirements – and don't accept out-dated misperceptions.
- Be prepared to shop around, buy in bulk, or obtain volume discounts through a framework contract or purchasing consortium – and don't accept a high price premium.



Annex A. Understanding a little more about paper and its supply chain

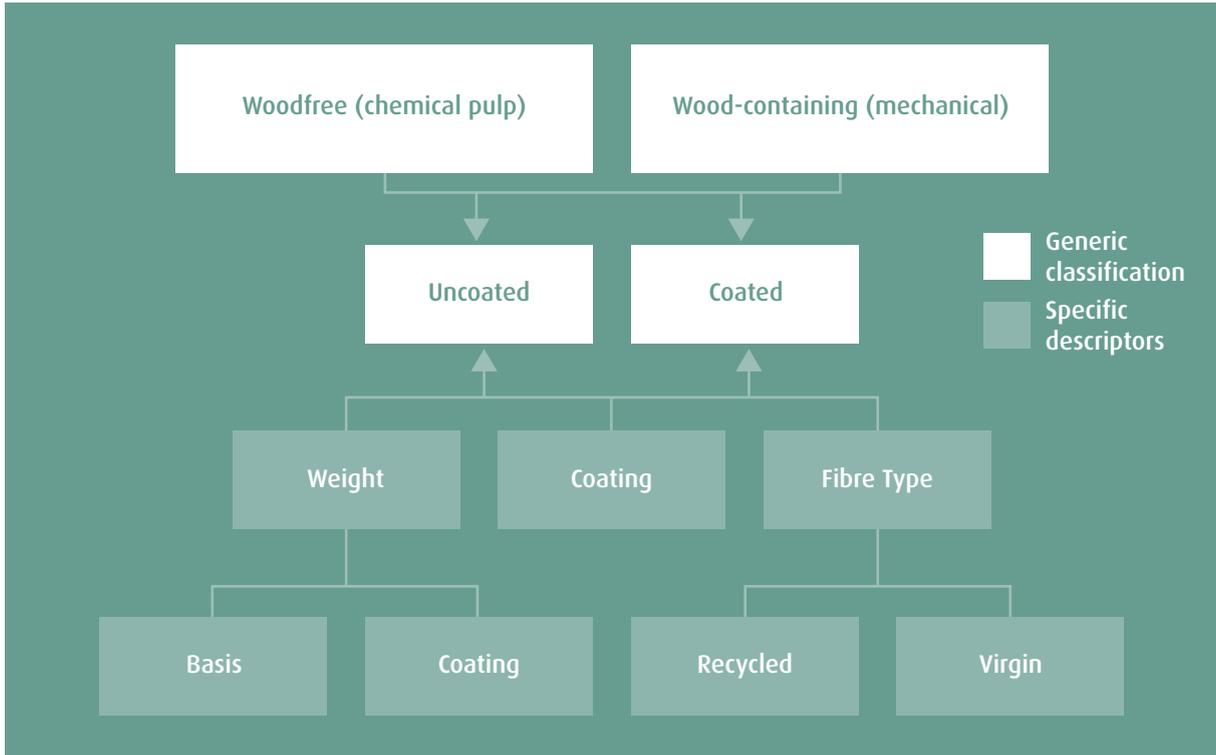
There are no clear internationally accepted standards for segmentation and classification of the paper market. At the broadest level, the market may be split in the following way:

- Printings & writings (or graphics papers)
- Newsprint
- Household & sanitary papers
- Case materials
- Folding Box Board (FBB), other packaging
- Speciality papers.

Classification of graphics papers

In a similar way to the broader segmentation of the paper market, there are no clear internationally accepted standards for classifying graphics papers, although the scheme outlined here is generally the most common approach used. The UK, in common with many parts of the world, tends to grade graphics papers into wood-containing (derived from mechanical pulp) and woodfree papers (made with pulp created using chemical processes to remove the lignin), which are then further subdivided into coated and uncoated papers. Based on these generic classifications, different paper products will then be differentiated by other specific factors such as basis and coating weight, fibre type etc. The latter will usually affect the final quality finish such as opacity, brightness, colour & whiteness, stiffness etc., although certain characteristics of the generic types will have impacts on the final quality. A general schematic is presented below (Figure A1).

Figure A1: Broad classification for graphics papers



To illustrate how the classification scheme works in practice, a few examples are outlined below:

- A typical office and copying paper would be a woodfree uncoated paper in the 70-100 gsm (grammes per square metre) basis weight range. Woodfree uncoated papers are sometimes used in sheet-fed and web-offset press applications such as instruction booklets or road atlases. They may also be used for small-scale in-house publications such as newsletters printed on office/copy paper.
- A heavier woodfree coated paper, with multiple heavy coatings, will be used for high quality magazines and reports, posters, calendars and photo-finish quality printing paper because of its inherent smooth feel, high brightness and low opacity. Woodfree coated paper may sometimes be differentiated by 1-side coated, on-machine coated, etc.
- Conversely, a wood-containing uncoated paper – typically supercalendered (SC) paper – will be of a lower quality and falls between coated paper and newsprint. SC paper quality does vary and is measured on a sliding SC-A, SC-B, SC-C scale. In recent years, improvements in the supercalendering process have brought about the introduction of a SC-A+ grade, which offers a superior finish to its SC predecessors, enabling SC-A+ papers to compete in some traditional LWC applications.

The remainder of the grades, such as wood-containing coated papers – typically differentiated on the base paper basis weight and/or the coating weight, such as light-weight coated (LWC) or medium-weight coated (MWC) – in quality terms fall between the high-end woodfree coated papers, and the wood-containing supercalendered papers. It is worth noting that a number of LWC producers are increasing the recycled content of their papers.

There is considerable convergence in the use of different grades for specific applications (particularly SC and LWC as a consequence of SC process improvements), and as a consequence switching between grades for certain applications is common, usually in response to supply/price changes in the market.

The base and coating weight will generally vary depending on the intended final end-use, which in turn will have an effect on cost. For a specific product, the fibre content will largely be dictated by the location of the mill at which the paper was produced. For example, in the case of SC papers, Scandinavian mills largely use virgin pulp, whilst SC paper originating in Central Europe has higher recycled content. In the UK, there is tendency towards the use of virgin pulp, although there are a number of mills producing graphics paper with recycled fibre.

The paper market

In the UK, over 4.8 million tonnes of graphics paper were consumed in 2002, of which around 1.5 million tonnes was domestically produced, with the remainder being imported. Currently, only a small proportion (<10%) of the 4.8 million tonnes of graphics paper consumed in the UK contains recycled fibre. In Central Europe, however, the use of paper with recycled fibre content has been grown significantly over recent years.

Paper types

Woodfree papers

Around 1.5 million tonnes of woodfree uncoated paper in the 50-150 gsm range are consumed each year in the UK, largely in the office and copying paper segment of the market. Less than 50% of this is produced domestically.

Continuous stationery, such as bills and statements, and some hard cover publications, will also form part of this market segment. These applications have not been considered in this guidance document, but are certainly an area where clients could look to use higher recycled content.

Wood-containing papers

Some grades of wood-containing graphics papers are difficult to distinguish from improved newsprint as a consequence of the arbitrary nature of the classification system. In the UK, around 1.8 million tonnes of wood-containing graphics papers are consumed annually, of which around 1 million tonnes are uncoated papers such as SC grades for applications including:

- Directory paper
- Lightweight catalogues
- Envelopes.

Wood-containing coated papers are generally limited to LWC and MWC papers for applications such as the majority of weekly magazines. In the UK, about 800,000 tonnes of wood-containing coated graphics paper are consumed annually. Although LWC and MWC papers are generally of higher quality than the SC grades – and therefore tend to be used for higher grade applications – there is significant switching between the LWC/MWC and supercalendered papers for certain applications as supply levels or prices fluctuate.

The paper supply chain

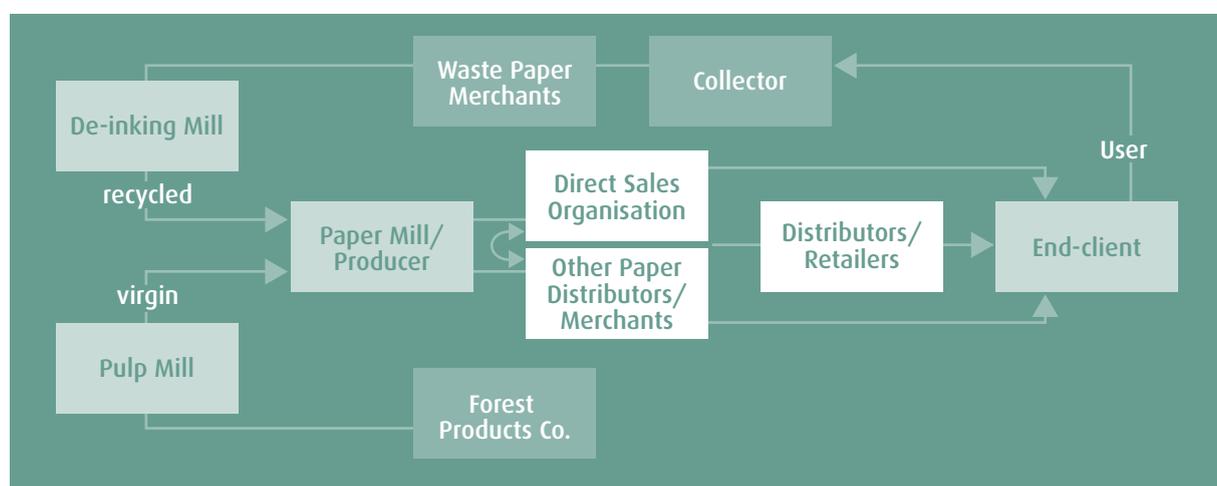
Office and copying paper and paper for printed publications have the same upstream characteristics in respect of pulp and paper manufacture, and are dominated by a core of key actors in the market. At the downstream end of the market, there are different supply and procurement channels according to the end-use application (Figures A2 and A3). The downstream side of the market is characterised by a diverse range of actors, ranging from large stationery suppliers and retailers, to large and small printers, vertically integrated suppliers and distributors, and independent paper distributors and retailers.

Many of the paper producers are vertically integrated up the supply chain in respect of virgin pulp (through the ownership of forestry product companies) or recycled paper (through the ownership of recycled paper collectors), and down the supply chain through national retail/distribution organisations.

Office & copying paper

The supply chain for office and copying paper has several stages, some of which may be vertically integrated within one company e.g. a producer that has its own pulp mills, paper mills and direct sales organisation. The downstream end of the supply chain involves paper distributors/merchants, a range of stationery suppliers, and a variety of end clients (Figure A2).

Figure A2: The supply chain for office and copying paper



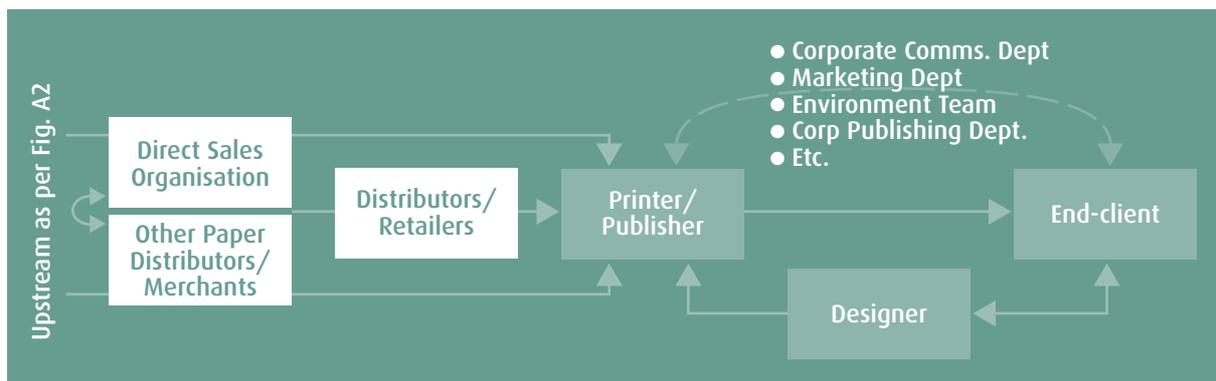
Paper for printed publications

The supply chain for paper for printed publications has the same upstream characteristics as that for office and copying paper, and involves the same actors. The downstream end of the supply chain, however, exhibits different characteristics, with potentially several different actors involved in the paper procurement process. These include:

- In-house publications departments which employ 3rd party printers.
- External printers or publishers which directly serve individual clients in large organisations.
- 3rd party design agencies employed by organisations to produce published material. These agencies may independently procure printing services for the end-client.

The downstream supply chain for printed publications paper is presented schematically below (Figure A3).

Figure A3: The downstream supply chain for printed publications paper



Direct sales organisations and other paper distributors

Leading producers of office and copying paper and paper for printed publications include:

- UPM
- M-Real
- Stora Enso
- Steinbeis Temming (distributed in the UK through John Heyer Paper Ltd)
- Norsk Skog
- Arjo Wiggins
- SCA Graphic Paper
- Curtis Fine Papers.

Some of the organisations have UK-based operations; others are exporters to the UK via independent UK paper distributors. A broad range of other companies will also sell paper in the UK via independent paper distributors. Not all of these companies will be structured to sell directly to end-clients.

Independent distributors/merchants/retailers

The distributor/retailer element of the supply chain is dominated by stationery suppliers and paper merchants.

Retailers include high-street and warehouse-type office supply retail chains, as well as specialist business supply services. Increasingly, online stationery suppliers are being used by organisations for procuring office supplies, although many of the high-street retailers are introducing an online service in parallel to their front-of-house operations.

Paper merchants supply paper to the printers and retailers or directly to end-clients, usually depending on the supply volumes contracted. Some paper merchants concentrate on printing papers, while others provide office papers or both.

UK paper distributors/merchants include Premier Paper, Antalis, Robert Horne, Howard Smith Paper, McNaughton Paper, Dixon & Roe, The Paper Company and Paperback. A list of paper merchants can be found at <http://www.napm.org.uk/members.htm>.

Distributors and retailers include Robert Horne, Dixon & Roe, Antalis, Paperback, Guilbert/Niceday, Lyreco, Office World, Fenns, Viking Direct, Xerox Office Supplies, Banner and UK Office Direct Limited.

These organisations cater for a wide range of paper requirements, and all offer recycled paper options.

Printers and publishers

There are approximately 12,000 printing companies located across the UK, made up predominantly of SMEs (small and medium-sized enterprises) and serving different markets. To find a printer for your requirements, there are a number of online search directories, including www.selectprinter.com, which allows you to search by product, service, geographic location or equipment type. Print management companies act as an intermediary to help large clients consolidate their total print requirements.

End-clients

Procurers of office and copying paper are likely to be purchasing departments, office managers, secretaries etc. Procurers of paper for printed publications are likely to vary according to the department procuring the printed publication, and the depth of control they exert down the paper supply chain.

For printed publications, the procurement route may be more complex, with individual departments within an organisation procuring publications through a variety of routes, e.g. corporate communications for company reports, environment team for environmental reports, marketing department for marketing material. Some organisations may have a specialist publications department where printed matter forms a core part of their business function, e.g. travel agents and catalogue retailers.



Annex B. Environmental claims, labels and marks

Eco-labels

Third party eco-labels such as the EU Eco-label, Nordic Swan (Scandinavia) and German Blue Angel are voluntary, independent labels which aim to identify the top 10–25% of products in terms of overall environmental performance across the life-cycle of the product. To do this, they set pass/fail criteria per product group covering key environmental impacts. Eco-labels can be given to a wide range of products, not just paper, whilst some apply to different types of paper. For paper, the criteria for recycled content vary as follows:



EU Eco-label for Copying & Graphic Paper

Fibre type not mandated – may be virgin or recycled. At least 10% of virgin wood fibres should come from certified sustainably managed forests. Graphics paper in this context is defined as sheets or reels of unprinted paper which are used for printing or copying or writing or drawing. Eco-label produce an e-catalogue on eco-labeled products: <http://www.eco-label.com/>
http://www.europa.eu.int/comm/environment/ecolabel/product/pg_copyingpaper_en.htm



German Blue Angel

Administered by the German Federal Environmental Agency and the Quality Control Institute (Deutsches Institut für Gütesicherung und Kennzeichnung e.V.) since 1979. Applies to graphic work paper up to 170gsm and duplicating paper. For recycled paper to qualify for the mark, it must be made of 100% “waste paper” (tolerance 5%), and contain at least 65% low-grade or medium-grade scrap and waste papers. The waste paper definition under the label is slightly different than the definition of post-consumer waste. Waste paper is defined as papers and boards obtained as a result of use or processing. Paper mill broke is not considered as waste paper, except for the broke obtained as a result of the manufacture of paper from 100% waste paper material – related to the amount of fibre use.

http://www.blauer-engel.de/englisch/navigation/body_blauer_engel.htm



Nordic Swan

This label was introduced by the Nordic Council of Ministers in 1989. Nordic Swan covers a variety of products, as well as other paper products and printed matter. It does not necessarily imply that the product contains any recycled fibre.

The criteria are based on the environmental effects of the manufacturing process rather than the selection of raw material.

<http://www.svanen.nu/Eng/about/>

NOTE:

1. Only the Blue Angel eco-label refers directly to recycled content.
2. All of these labels have a limited presence on the UK market.
3. Other papers, including some with high recycled content, may meet eco-label criteria but have not applied for a label itself.

Environmental declarations

Paper Profile

Paper Profile is a voluntary environmental product declaration, i.e. it provides standardised categories for companies to provide environmental information across the product's life-cycle, which therefore enables customers to compare products. The categories cover environmental management systems, raw materials, emissions to water and air, solid waste, electricity consumption and product composition. Independent verification of the data is optional but is highly recommended on an annual basis. If undertaken, details of the verifying body will be included in the declaration. It is primarily suited to business procurers (commercial or public sector).

<http://www.paperprofile.com/>

Environmental Profile Data Sheet for Pulp and Paper

The EPDS is a standardised reporting form, which offers measurement data and explanatory comments relating to a list of environmental attributes that cover the life-cycle of pulp and paper products. It provides pulp and paper producers with a credible and cost-effective way of measuring and reporting on the environmental performance of individual products and the mills that produce them.

<http://www.terrachoice.ca/epds.htm>

NOTE: A company which uses an environmental declaration will not necessarily be producing papers with recycled fibre content.

Recycling marks/symbols

Mobius Loop

The Mobius Loop is an internationally-recognised recycling symbol with each arrow representing an aspect of a successful recycling programme: collection, remanufacturing/reprocessing into a new product, and finally purchase by the consumer. The symbol is only to be used on goods that are 'recyclable' or include 'recycled content', in which case the percentage of recycled content should be stated together with the symbol.

Most people will be familiar with the Mobius loop but may be unaware exactly what it means:



Where the symbol appears without a number, it indicates that the product is 'recyclable' and therefore, does not necessarily mean that there is any recycled content.



Where the symbol appears with a number, it indicates that the product contains XX% recycled content – in this case 90% recycled content.



NAPM

The NAPM (National Association of Paper Merchants, <http://www.napm.org.uk/>) recycled mark is awarded to those papers which contain a minimum of 75% "genuine waste". "Genuine waste" is defined as:

- Convertors' waste: paper which has left the mill and is waste from a cutting or slitting operation undertaken to meet a specific commercial order.

- Printers' waste: printed or unprinted waste collected from a printing operation, which may be either 'trimmings' (guillotine waste), 'overs', 'rejects' or any other similar waste received direct from a printer.
- Domestic/household/office (i.e. post-consumer) waste: waste collected from any of these places, and which may be printed or unprinted.

Any combination of the above can go towards the 75% genuine waste fibre minimum. Under no circumstances can mill broke contribute to genuine waste.

NOTE: Not all recycled papers on the UK market have the NAPM mark.

Green Dot (Der Grüne Punkt)

The Green Dot® or Der Grüne Punkt® is a registered trademark indicating that a financial contribution has been paid to an authorised packaging scheme. The Green Dot® is not a recycling symbol, although it is often misinterpreted as such. It should not be used to denote general recyclability or recycled content. The Mobius loop is the correct symbol to use for claims in this context. The UK is not a participant in the scheme.

NOTE: Whilst in some instances the Green Dot symbol may appear on paper packaging, the symbol actually refers to the packaging and not the paper inside, which may not necessarily be recycled.

Green Seal Criteria Coated Printing Paper (GS-10)

This is a mark developed in the US, and is rarely seen in the UK. It specifies that the fibre in a coated printing paper shall contain a minimum of 10% post-consumer material. A 10% threshold is normally applied for a paper to qualify as "recycled" in the US.

Eugropa Recycled Mark

According to Eugropa, the EUGROPA Recycled Mark is not in use any more but reference to the Mark can still be found in some guides and is occasionally referenced by suppliers. Eugropa is a European wide organisation representing the interests of national trade associations in fifteen countries – Austria, Belgium, Denmark, Finland, France, Germany, Holland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland and the UK.

Forest certification schemes

Third-party forest certification schemes are essentially communication tools that enable forest owners and forest product companies to provide assurance to traders and consumers that the products they are purchasing have been grown in well-managed forests. The schemes set detailed criteria for the source forest, covering issues such as biodiversity, consultation with local stakeholders, legal rights to log the forest, rights of forest-dependent peoples and so on. They also set 'chain of custody' (CoC) requirements, which involve an audit process to track the raw material from source forest to final product.

The two most prominent existing schemes are the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification schemes (PEFC) international initiatives. Some national schemes exist, such as the Canadian Standards Association Sustainable Forest Management System, the Finnish Forest Certification Scheme and the American Forest and Paper Association Sustainable Forestry Initiative (SFI).



The Forest Stewardship Council (FSC)¹

For paper, the FSC trademark can be displayed on products containing a mix of uncertified and certified virgin fibre so long as the total virgin fibre contains minimum 30% FSC-certified.

For paper products containing a mix of recycled or other 'neutral' and certified materials, the FSC trademark can be applied so long as the minimum amount of FSC pulp is 17.5% of the weight or volume of the whole product. This allows up to 82.5% post-consumer fibre to be included in a paper carrying the FSC trademark. The FSC is currently preparing new standards for chip and fibre products. New standards for Chain of Custody will allow an increased proportion of verified post-consumer waste fibre. Products with up to 100% verified post-consumer waste fibre will be able to carry the FSC trademark; the first FSC-certified 100% recycled paper will be on the market in mid-2004. A pilot scheme is underway with Mohawk Paper Mill and Monadnock Paper Mill in the USA, which both have an FSC Chain of Custody certification for their 100% post-consumer fibre paper.

<http://www.fsc-uk.info/>

Information on the new Chain of Custody standards is available here: <http://www.fscoax.org/coc/>



The Programme for the Endorsement of Forest Certification schemes (PEFC)²

The PEFC Council is an independent, non-profit, non-governmental organisation, founded in 1999, which promotes sustainably managed forests through independent third party certification.

The PEFC provides an assurance mechanism to purchasers of wood and paper products that they are promoting sustainable forest management. For more information please visit <http://www.pefc.org>. PEFC was previously known as the Pan-European Forest Certification Scheme.

NOTE: An FSC- or PEFC-certified paper currently does not specifically indicate that it contains recycled fibre. The FSC and PEFC Chain of Custody awards recognise companies that use virgin pulp made from forest products that come from sustainably managed forests. Some recycled papers contain a percentage of certified pulp e.g. 75% recycled content, 25% FSC or PEFC pulp.

Environmental management systems

ISO14001 and EMAS

Paper manufacturers are increasingly providing information to their customers about their Environmental Management Systems (EMS), typically certified under the ISO 14001 standard and/or the EMAS scheme. Such systems are increasingly being adopted by Western pulp mills and paper producers.

There are crucial differences between EMS and eco-labels; the former confirms that the company has a structured system in place for identifying and managing its environmental impacts, thus focusing on process not performance, whereas the latter sets prescriptive performance criteria. As a result, the two should not be seen as interchangeable or equivalent when assessing suppliers.

NOTE: A company which has ISO14001 or EMAS certification for the mill at which the paper is made will not necessarily be producing papers with recycled fibre content.

¹ FSC Trademark © 1996 Forest Stewardship Council A.C. (FSC-GBR-0230).

² The PEFC logo is reproduced with the permission of the PEFC Council.

Annex C. Sources of further information

The following organisations can provide more information on procurement and on procuring paper and recycled products in general:

Recycled products

Waste and Resources Action Programme (WRAP)

<http://www.wrap.org.uk/procurement>

Information on “Why, what and how” for specifying recycled in the procurement of goods, works and services.

Link to WRAP’s recycled products directory.

ReMaDe organisations

<http://www.remade.org.uk/>

Link to regional organisations that assist the local implementation of recycling and buying recycled.

OGCbuying.solutions

www.sustainable-solutions.gov.uk

Green product database, designed especially for the UK public sector.

Procurement

Department of Environment, Food and Rural Affairs (Defra)

www.sustainable-development.gov.uk

Includes guidance on sustainable procurement and estates management for the Government Estate.

Office of Government Commerce (OGC)

www.ogc.gov.uk

Advice on procurement practice for the UK public sector. Web site includes the OGC/Defra Joint Note on Environmental Issues in Purchasing. OGCbuying.solutions provides a procurement service for government, including framework contracts for a range of products.

Improvement and Development Agency for local government (IDeA)

www.idea.gov.uk

Guidance on good practice in local government procurement, including sustainable procurement.

Chartered Institute of Purchasing and Supply (CIPS)

<http://www.cips.org>

Professional body.

Society of Procurement Officers in Local Government (SOPOL)

www.sopolo.org.uk

Help and advice for procurement professionals in local government.

International Council for Local Environmental Initiatives (ICLEI)

<http://www.iclei.org/>

European Eco-Procurement initiative and Green Purchasing Good Practice Guide.

Product labels and marks

Global Eco-Labeling Network

<http://www.gen.gr.jp>

Overview of eco-labels and their web sites, provided by the Global Eco-Labeling Network (GEN).

Trade Associations

National Association of Paper Merchants (NAPM)

<http://www.napm.org.uk/home.htm>

Includes a list of member companies.

British Printing Industries Federation (BPIF)

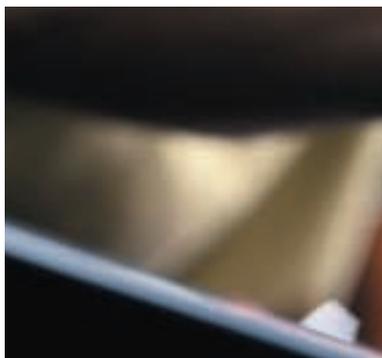
<http://www.britishprint.com/business/eas.asp>

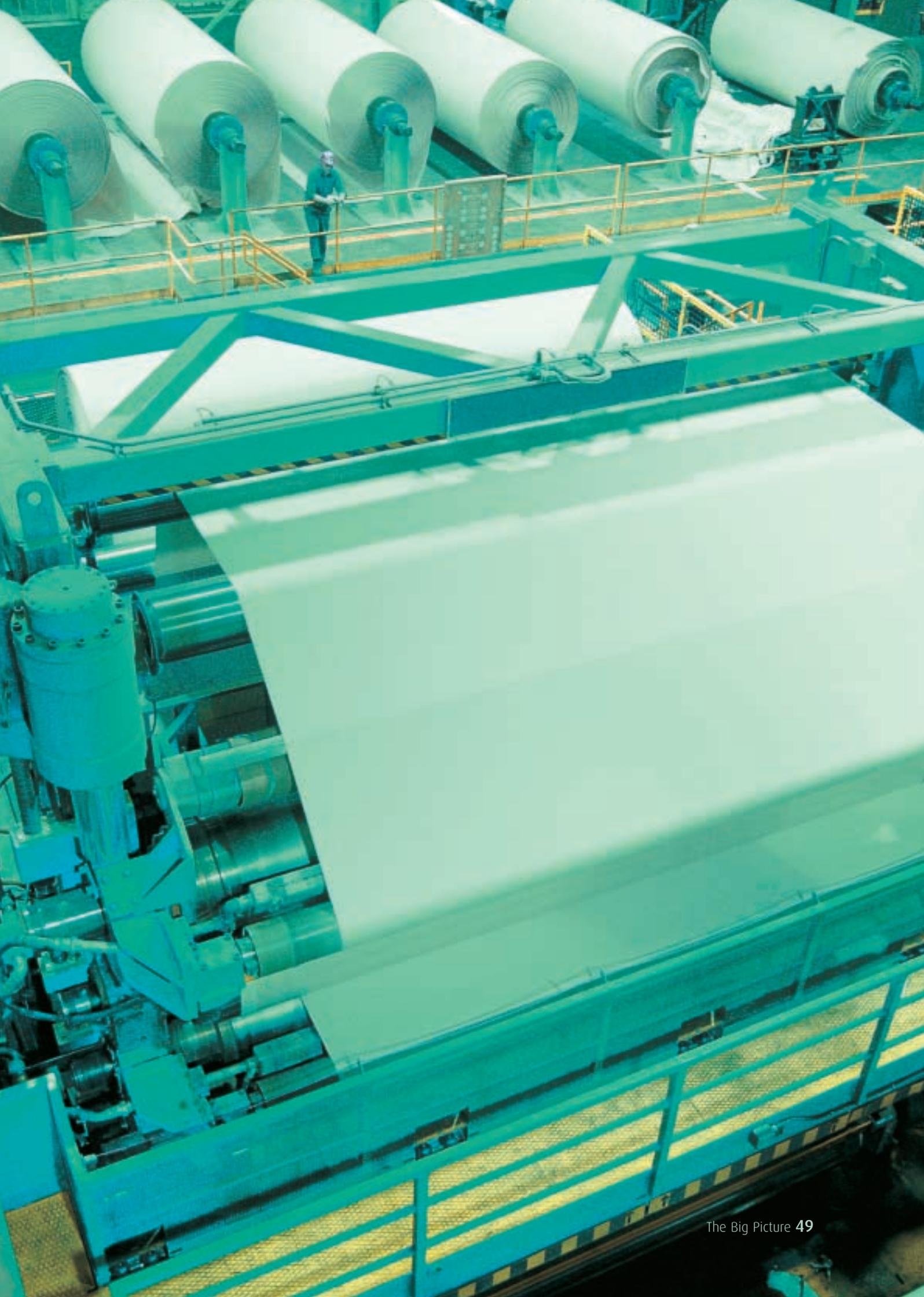
Describes an Environmental Assessment Scheme for printers and publishers, developed jointly with the Periodical Publishers Association.

Confederation of Paper Industries

<http://www.paper.org.uk/>

Focused on all sectors of the paper industry to discuss and resolve issues of common interest, and to promote paper across many applications.





Annex D. Glossary of terms

Technical paper descriptors

Basis weight: sometimes called the grammage or substance, this is the weight (mass) per unit area. In Europe this is normally expressed as grams per square metre, or gsm, or g/m². In the USA, it is sometimes expressed as the mass (in lbs) of a ream (usually 500 sheets, but sometimes 480) of a given sheet size.

Brightness: is a measure of the reflectance of light of a specific wavelength, under closely defined conditions, from white or near white papers. A numerical value is derived from a comparison of the reflectance of a specimen under test with a standard. Several instruments are in common use, and as they may use light of slightly different wavelengths, or geometry, they give different results, so brightness values should only be compared when it is clear which test method or instrument has been used.

DIP: de-inked pulp i.e. pulp made from recovered paper that has had the original ink removed.

Dusting: loosely refers to the surface strength of a coating or paper, and its resistance to particles being removed from the surface during printing. It is also known as picking. Tests have been developed to determine the resistance of paper surfaces to picking or dusting, an important property in printing.

Fibre: Wood is composed of two components – cellulose and lignin. Fibres are narrow hollow tubes made of cellulose, and their length, thickness and wall thickness vary according to wood species and climate. Soft woods provide fibres with a greater length and diameter than hardwoods and so confer greater strength than hardwoods to paper. However, hardwood pulps produce paper that is smoother, so in general a blend of fibres is used with the mix being varied to confer the exact properties required in a specific paper. Fibres can also be derived from annual plants such as straw, bagasse, cotton, flax, etc.

Gsm: see basis weight.

Laid paper: is made using a forming fabric that imprints its surface contours to the sheet of paper. The dilute mixture of water and fibre drains through the forming fabric so that wet paper sheet assumes the pattern of its surface.

Longevity: refers to the life of a paper or paper product.

Opacity: is a measure of the degree of transmission of light through the paper – low transmission means high opacity. Usually high opacity is desirable in printing papers, to minimise the transmission of images from one side of the paper to the other.

Pulp: Pulp (includes virgin, DIP and their sources such as rags etc) is a generic term referring to the product following processing of the raw material (usually wood) used to produce an intermediate between wood and paper. In integrated mills, pulp is almost immediately made into paper, but in other mills a heavy board is made, dried and cut into sheets, with a number of sheets being baled. This is usually traded or sold in the market and is the generally accepted “pulp”.

Stiffness: refers to the resistance to bending of paper, in either the machine direction (MD) or the cross-machine direction (CD). It is an important property, and affects how well paper feeds through various types of printing process. It is proportional to the thickness of the paper.

Supercalendered: Calender refers to a paper press employing two press rolls with smooth surfaces with one roll pressing against the other fixed roll at high pressure. This forms a very small nip through which the paper web passes. It is used to improve the smoothness of the paper surface and increase gloss. A supercalender includes several calendering stages, and in the case of SC papers soft nip presses are often used. Sometimes one of the press rolls is heated. The different grades of supercalendered paper vary according to the number of calendering stages, the type of calender used and the press pressures as well as fibre type. The highest quality (SC-A+) is generally produced using virgin fibres, employing several stages of calendering including soft press rolls.

Weight: weight is an abbreviation of basis weight.

Coatings

Silk: a coating that provides a lustrous finish, between that of a gloss and a matt coating.

Matt: a coating that has a smooth uniform surface, but without gloss – not a highly polished or shiny appearance.

Gloss: this coating gives the impression of a highly polished surface, though this can vary when the angle of view or illumination is changed. There are several methods used to measure gloss, usually at a fixed viewing angle.

Wove paper: shows a pattern similar to woven lines on its surface.



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Disclaimer: WRAP believes the content of this guidance to be correct as at the date of writing, early 2004. However, factors such as prices and paper availability are subject to change and users of the guidance should check with paper suppliers to confirm the current situation. The guidance does not claim to be exhaustive, nor does it claim to cover all recycled paper suppliers and all recycled papers available on the market. Names of brands or recycled paper suppliers are given in the context of case studies and examples. Where names are mentioned, this does not constitute an endorsement of any particular brand or recycled paper supplier.