

Paper plays a vital role in human communications. Paper products are made of renewable and biodegradable raw materials and are recyclable.



paper profile

A voluntary environmental Product Declaration which aims to help the paper buyer to make responsible paper choices.

The sustainable way to make responsible paper decisions

About Paper Profile

In co-operation with distributors and industry associations, leading pulp and paper manufacturers have developed a uniform declaration of vital environmental product information. This product declaration format, which is continually being developed, is called Paper Profile. Issued for individual products, the single-page declaration gives essential information regarding the composition of the product, key environmental parameters, environmental management and wood procurement.

Continual improvements

The pulp and paper manufacturers who participate in Paper Profile are committed to minimise the environmental impact of their activities. Measures taken include significant improvements in the production process as well as emission control to air and water. Biofuels are to a large extent used for energy in the production process.

Uniform environmental reporting

The key idea behind Paper Profile is to provide paper buyers with relevant and uniform environmental information, enabling more conscious choices. The pulp and paper industry has a long tradition of open environmental reporting to national authorities and other stakeholders. In today's increasingly internationalised paper market, this requires a uniform approach to reporting variables and measuring principles. To a large extent, these are also strictly regulated by national and international environmental bodies.

Limits of comparability

Environmental matters are complex and specific figures can not always be compared without taking other environmental aspects into account on a larger scale e.g. site specific considerations. Furthermore, different paper manufacturing processes have different environmental impacts and therefore cannot always be directly compared.

Company logo

Cert.

Product

Company

Mill

Information gathered from _____ to _____
Date of issue _____

Environmental product declaration for paper

Environmental Management

Certified environmental management system at _____

Company systems ensure traceability of the origin of wood yes no 100% recovered paper

Environmental parameters

The figures are based on methods and procedures of measurement approved by the local (or national) environmental regulators at the production site. The figures include both paper and pulp production.

Water	COD	kg/tonne
	AOX	kg/tonne
	N_{Tot}	kg/tonne
	P_{Tot}	kg/tonne

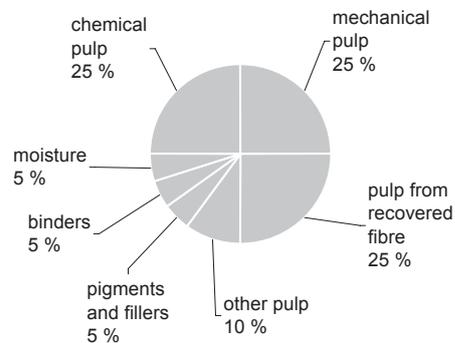
Air	SO₂	kg/tonne
	NO_x	kg/tonne
	CO₂ (fossil)	kg/tonne

Solid waste landfilled _____ BDkg/tonne

Purchased electricity consumption

/tonne of final product _____ kWh

Product composition



More information

Contact person _____
Address _____
Phone _____
E-mail _____

More information about Paper Profile can be found on www.paperprofile.com

The key parameters declared in the Paper Profile primarily relate to the production of pulp and paper. All the items in the declaration are explained in detail in the Paper Profile Manual.

Environmental management systems

Environmental management systems are useful tools which ensure a systematic approach to environmental monitoring and continual improvement. They are today regarded as integral to overall business performance.

The certified environmental management systems used by participants in the Paper Profile programme are the ISO 14001 standard and/or the Eco-Management and Audit Scheme (EMAS), which is regulated by the European Union. Both systems cover organisational procedures, procurement, product development, production and distribution. They include both the current status and methods for continuous improvement. In this way, company management can systematically monitor environmental performance, initiate early corrective action, keep track of actions taken and document results.

Environmental aspects of wood procurement

Environmentally-conscious forest industry companies continually strive to ensure sustainability and the preservation of biodiversity.

Forest certification is a tool to guarantee that the wood used for pulp and paper production originates from sustainably managed forests and legal sources.

Currently, the most widely used forest certification systems are the Programme for the Endorsement of Forest Certification schemes (PEFC) and the Forest Stewardship Council (FSC). Paper industry uses both systems equally.

Environmental Parameters

The key parameters declared in the Paper Profile primarily relate to the production of pulp and paper: Emissions to air and water, solid waste landfill and the consumption of purchased electricity. The information provided in the single Paper Profile sheet is based on figures reported to environmental authorities. All the items in the declaration are explained in detail in the Paper Profile Manual.

The standard parameters (per tonne of paper) reported in the Paper Profile are:

COD = Chemical oxygen demand
The amount of oxygen consumed in complete chemical oxidation of matter present in wastewater.

Organic substances released from industrial or agricultural activities consume oxygen in water during degradation. Low oxygen content in fresh and sea water can have an adverse effect on plant and animal life.

AOX = Adsorbable organic halogen compounds, reported as the total amount of chlorine bound to organic compounds in wastewater.

Such compounds occur naturally, but are also formed in conjunction with the bleaching of chemical pulp. Excess AOX must be limited to a level where it has no environmental impact.

N_{Tot} = Total amount of organic and inorganic nitrogen.

P_{Tot} = Total amount of organic and inorganic phosphorus.

Nitrogen and phosphorus are chemical elements essential for plant and animal life. Both substances occur naturally in wood and are often added in biological treatment plants. Excessive levels released into water can cause nutrient enrichment (eutrophication) and suppress normal oxygen supply.

SO₂ = Sulphur dioxide.

This gas is generated by burning sulphur-containing fuels and as a by-product in chemical pulping. On contact with moist air, SO₂ forms sulphuric acid, which contributes to acid rain and acidification.

NO_x = Nitrogen oxides (NO and NO₂)

These gases are produced during combustion. In moist air, nitrogen oxides can form nitric acid which, in turn, is precipitated as acid rain. This nitrogen-containing rain also has a fertilising effect (eutrophication).

CO₂ = In the context of papermaking, fossil carbon dioxide is generated from the combustion of fossil fuels during the production of pulp and paper.

Increased amounts of carbon dioxide and other greenhouse gases in the atmosphere are gradually reducing the radiation of heat from the surface of our planet. Carbon dioxide is naturally produced through the biological degradation of organic substances, but also through the combustion of fossil fuels such as oil, coal and natural gas. It is mainly the latter that contributes to the greenhouse effect.

Solid waste = non-liquid waste landfilled (on site and/or elsewhere).

Organic and inorganic waste materials are defined, calculated and declared as completely dry matter. If not properly managed and controlled, leaks from landfills can contaminate ground water.

Purchased electricity consumption = amount of purchased electricity per produced tonne of paper.

Note: Emissions of SO₂, NO_x and CO₂ resulting from external energy suppliers are not included in the figures reported in the Paper Profile.

Product composition

The composition of the paper is declared in a standardised Paper Profile graph. The main raw material used in pulp and paper production is wood fibres, originating from own forests or purchased from external sources. Varying amounts of binders, pigments and fillers are also used to provide the required paper characteristics.

Depending on the required paper properties, paper is produced from fresh fibres (chemical and/or mechanical pulp) and/or recycled fibres (deinked pulp). The terms used for the respective pulping method refer to how the wood fibres are separated.

Pigments and fillers (usually chalk or clay) are used to enhance the print properties and other key parameters. Binders are added to the pulp to join the fillers and pigments to each other and to fibres. Binders also prevent dusting, a phenomenon that can cause significant disturbance in today's sophisticated office and printing systems.

The members of Paper Profile

The paper manufactures that participate in Paper Profile are committed to minimising their environmental impact.

Paper Profile is an internationally-harmonised way of communicating environmental performance. A uniform format of an Environmental Product Declaration throughout the supply chain enhances the basis for a conscious paper choice.

For further information, please visit us at **www.paperprofile.com**.

Regarding the practical implementation of Paper Profile and on-going environmental efforts, please contact the Paper Profile member companies.

Arctic Paper
www.arcticpaper.com

Burgo Group
www.burgogroup.com

Papeteries de Clairefontaine
www.clairefontaine.com

Holmen Paper
www.holmenpaper.com

International Paper
www.ipaper.com/europe

Kotkamills Oy
www.kotkamills.com

LECTA
www.lecta.com

Lenzing Papier
www.lenzingpapier.com

Mondi AG
www.mondigroup.com

M-real Corporation
www.m-real.com

Norske Skog
www.norskeskog.com

grupo Portucel Soporcel
www.portucelsoporcel.com

Sappi Europe
www.sappi.com

SCA
www.sca.com

Scheufelen
www.scheufelen.com

Stora Enso
www.storaenso.com

UPM-Kymmene Corporation
www.upm.com

VERTARIS SAS
www.vertaris.eu

Vida Paper
www.vidapaper.se