



on
**Canopy's Ecopaper Database developed according to
Environmental Paper Network's Paper Steps
and Canopy's Paper Hierarchy**

Q. Where do the terms 'Ancient Forest Friendly' and 'Superior' come from?

Canopy and Environmental Paper Network, of which Canopy is a founding member, designed these designations based on the principles outlined in the Common Vision for the Transformation of the Paper Industry.

The Common Vision was developed through a consensus process by North America's leading environmental paper not-for-profit organizations and was informed by research on the paper life cycle analysis published in the Paper Task Force Report by the US EPA, Environmental Defense Fund and others at <http://www.edf.org/article.cfm?ContentID=1635>.

To learn more about EPN and the Common Vision visit <http://www.environmentalpaper.org>

Q. Why are some papers called both 'Ancient Forest Friendly' and 'Superior'?

If the papers meet the criteria of the Superior step of EPN's Paper Steps, Canopy's Paper Hierarchy also recognizes them as Ancient Forest Friendly. Different name, but same criteria! Many papers in the marketplace meet the top criteria...just search for Superior or Ancient Forest Friendly papers in the Ecopaper database.

Q. Is 'Ancient Forest Friendly' or 'Superior' a certification?

No, they are 'designations' from Canopy and the Environmental Paper Network.

To learn more about the Ancient Forest Friendly designation visit

<http://canopyplanet.org/index.php?page=your-guide-to-the-ancient-forest-friendly-designation>

Q. Are there more ecopapers available than those in the ecopaper database list?

We have captured all the 'Ancient Forest Friendly' papers and 'Environmentally Superior' papers we know about, however it is possible that we missed some. If you know of a paper that should be added and meets these top most Paper Steps criteria, let us know and we'll analyze your request.

Email: neva@canopyplanet.org

Q. There are many more papers on the market that fall into the 'Transitional' category than are on the Ecopaper Database. Why?

We have included the papers in each 'paper type' that have the highest ecological attributes and recycled contents. Therefore, a 100% virgin and FSC certified paper that is in a "paper type" category that has a large number of papers with higher recycled content would not show up in the database. This is true for book paper grades for example. The goal of this paper database is to encourage the use of the most environmentally preferable papers available on the market, which explains why not all transitional papers are listed. However, FSC Canada provides a list of all the FSC certified papers, regardless of recycled content.

Q. Why are many cotton papers missing from the database?

We have excluded papers with cotton content that have been bleached with elemental chlorine, because elemental chlorine bleaching produces large amounts of (cancer causing) dioxins that can end up in the environment.

Q. Why don't you recognize 'Carbon Neutral' paper in the green energy category?

'Carbon neutral' is a term that refers to attempts to balance the amount of carbon released in the atmosphere with the amount sequestered or offset. Currently there is no overarching standard body governing carbon neutral claims, which makes credible accounting difficult. It is an especially problematic term when applied to paper composed of virgin tree fiber. While 'carbon neutral' is often been applied to designate paper produced by a mill that has implemented energy reduction measures at the mill and purchased offsets for the energy used to produce the paper, when applied to paper composed of virgin fiber, it does not take into account the heavy role that 'deforestation' and 'fragmentation' play in global carbon emissions. Conversely, there are mills in North America promoting carbon neutral paper that is 100% recycled and offset with wind projects - papers we have identified as low carbon options.

To learn more about the myth of carbon neutral claims read EPN's 2009 Report, *Carbon Neutral Paper: Fact or Fiction* at <http://www.environmentalpaper.org/carbonneutralpaper/index.htm>

Q. If you do not recognize 'carbon-neutral' paper, what then do you recognize when it comes to paper?

We suggest you look for 'low-carbon' and 'low-biodiversity' footprint papers. These are papers that contain high-recycled content, agricultural residue fiber and Forest Stewardship Council certified pure fiber where virgin fiber is necessary. These papers can also be made at mills utilizing renewable energy like wind, solar and biogas, certified by a credible green energy certifier.

Q. But I thought burning biomass to make paper was carbon neutral?

Fact: Biomass Burning Contributes to Climate Change. Biomass burning produces a 'pulse' of carbon dioxide from its smokestack that will remain in the atmosphere for decades. The U.S. EPA's findings on greenhouse gases and CO₂ states that 'for a given amount of CO₂ released today, about half will be taken up by the oceans and terrestrial vegetation over the next 30 years, a further 30 percent will be removed over a few centuries, and the remaining 20 percent will only slowly decay over time such that it will take many thousands of years to remove from the atmosphere (74. Fed. Reg.18886, 18899).' This finding is based on extensive scientific reports. Thus, CO₂ emissions from biomass burning will stay in the atmosphere for hundreds to thousands of years.

Industry claims that these plants are carbon neutral is unsupported by science.¹ Read more in an October, 2009 article published by Science Magazine: <http://tiny.cc/CTHhz>, whose abstract states,

"The accounting now used for assessing compliance with carbon limits in the Kyoto Protocol and in climate legislation contains a far-reaching but fixable flaw that will severely undermine greenhouse gas reduction goals (*I*). It does not count CO₂ emitted from tailpipes and smokestacks when bioenergy is being used, but it also does not count changes in emissions from land use when biomass for energy is harvested or grown. This accounting erroneously treats all bioenergy as carbon neutral regardless of the source of the biomass, which may cause large differences in net emissions. For example, the clearing of long-established forests to burn wood or to grow energy crops is counted as a 100% reduction in energy emissions despite causing large releases of carbon."

¹ Searchinger, et al, "Fixing a Critical Climate Accounting Error:" Science, 325:529, October 23, 2009.

Q. Why are Stone Papers not on the list?

Stone papers are tree-free, but we have not seen any studies that compare the complete life cycle of stone paper to traditional recycled paper, nor have we seen studies that show the stone and plastic in the paper does not harm current paper recycling systems. Though the plastic in some stone papers will degrade, we are seeking more information because some plastic can take hundreds of years to break down. Stone papers are possibly a part of the solution but more research needs to be done.

Q. Most of the papers in the database are ranked ‘Transitional’ due to their ECF bleaching. How can a mill improve their bleaching and obtain a higher ranking?

You can improve your ranking by investing in chlorine oxygen delignification (EECF) or processed (PCF) or totally chlorine free (TCF) technology. ECF technology, which uses chlorine dioxide, does not reduce the quantity of effluent a mill discharges compared to bleaching with chlorine, and uses substantially more chemicals and energy than mills that use oxygen delignification. Oxygen delignification is the key first step in reducing effluent quantity, improving effluent quality and increasing energy efficiency.

Q. What does each of the bleaching acronyms mean?

Processed Chlorine Free (PCF) applies to recovered paper fiber and means the recycled and deinked paper fibers are whitened without any chlorine. Since we value both forest conservation and reducing unnecessary chemical use, we advocate PCF as the most environmentally preferable option.

Totally Chlorine Free (TCF) paper is also whitened without any chlorine bleaching, but can only apply to virgin fiber paper and not to recycled paper. If TCF is the option you desire then you should make sure all virgin fiber is 100% FSC-certified, and not extracted from endangered forests or illegally logged areas.

Enhanced ECF with ozone or hydrogen peroxide substitutes ozone or hydrogen peroxide for chlorine or chlorine dioxides as a brightening agent in the initial stages of the bleaching process. This process is inferior to PCF and TCF because it uses chlorine dioxide in the final stages of bleaching. However, compared to the processes outlined below, this process is preferable because it further improves the quality of the wastewater and enables recovery of most mill wastewater by 70 to 90% compared to traditional ECF.

Enhanced ECF with extended or oxygen delignification removes more lignin from the wood before bleaching than the traditional ECF method. Therefore, fewer bleaching chemicals are required. In addition, compared with traditional ECF, this process reduces energy consumption by 30%, improves the quality of mill wastewater, and reduces the quantity of mill wastewater by nearly 50%.

Elemental Chlorine Free (ECF) is a bleaching process that substitutes chlorine dioxide for elemental chlorine. Compared to elemental chlorine bleaching processes, ECF bleaching reduces the formation of many chlorinated organic compounds. However, it does not completely eliminate them and the quantity of effluent from mills is not reduced.

Q. Where did you get the bleaching details for our products?

To verify the bleaching method used by your mill, we first looked on your website and if the details were not there we called your marketing or customer service department. If your paper listing incorrectly states ECF, it is because we were given that information when we called. If there is an error, we are more than happy to correct it and update your paper designation accordingly. Please email neva@canopyplanet.org with exact details on the bleaching methods used for your papers.

Q. I have heard of an organization called ‘Canopy’ and a project called ‘Carbon Canopy’. Are they the same thing?

No, these are totally different projects and organizations. Learn more about Canopy at www.canopyplanet.org. Learn more about the Carbon Canopy project in the U.S. at www.carboncanopy.com