

### Environmental Reference Guide

#### Key Topics & Glossary of Terms

As the world's largest producer of commercial paper products, we at Georgia-Pacific Commercial focus on the intersection of user needs and environmental sustainability. And we know that our scale and expertise enable us to affect broad, positive change that benefits both the environment and our customers.

A guiding principle at Georgia-Pacific is creating long-term value for our customers, consumers and society. Environmental sustainability is critical to helping us achieve this goal. By providing innovative products and solutions in a manner that is environmentally and socially responsible, and economically sound, we are meeting the sustainability needs of today with a continued focus on tomorrow.

Georgia-Pacific Commercial has manufactured environmentally friendly products since 1930. We are committed to preserving and sustaining the environment and in doing so, we will continue to help our customers achieve their environmental goals as well.



#### At Georgia-Pacific Commercial, we are committed to:

- Innovative products and solutions that help meet a range of sustainability goals, including waste reduction dispensing systems, recycled content products, and environmentally sound packaging. We manufacture more than 200 away-from-home products made from recycled fiber.
- Using proven science to protect renewable resources and the environment throughout our raw material acquisition, manufacturing and operating

processes. These include forestry stewardship, chemical usage, water treatment, waste reduction and efficient energy usage.

- Sharing our knowledge to help businesses find ways to improve the environmental impact of their own commercial paper procurement, usage and disposal.



Printed on FSC-certified Endeavour® 100 lb. Velvet Cover that includes a minimum of 25% post-consumer recovered fiber.

This brochure has been printed with soy based inks.

For more solutions from Georgia-Pacific, contact your Georgia-Pacific representative at 1-866-HELLO GP (435-5647) or visit [www.gp.com/awayfromhome](http://www.gp.com/awayfromhome)



Green by Design™ products from Georgia-Pacific reflect our commitment to protect the environment, operate in a sustainable fashion and deliver products that make a difference for the planet and our customers every day. We do this by studying the latest science, investing in research, educating businesses and producing products that are green. We support the Environmental Protection Agency's (EPA) strategies of Reduce, Reuse and Recycle. In addition, we help our end user customers demonstrate that their facilities are "Green", in part due to the environmental dispensing systems and paper products they choose.



Reducing waste is at the core of our environmental commitment. Georgia-Pacific has introduced cutting-edge methods to reduce packaging waste and actively minimize the amount of waste produced at the point of use. For example, our coreless tissue eliminates up to 95 percent of packaging waste associated with standard bath tissue. And our enMotion® paper towel dispensers give washroom users one towel at a time, reducing usage considerably.



Georgia-Pacific is known for finding innovative ways to reuse the by-products of the papermaking process for production and packaging. We recycle and reuse water throughout multiple stages of the papermaking process in our mills. In addition, some of the by-products from our mills are reused to help make grass grow, build roads and provide a strong foundation for highways. Finally, we have a number of wiper products designed to be reused.



Recycling is vital to the planet's health. We offer more than 200 away-from-home products with recycled content. All of our Envision® products and Compact® tissue meet or exceed the Environmental Protection Agency's Comprehensive Procurement Guidelines for recycled fiber. Additional products from the enMotion®, Cormatic® and Preference® brand families also meet these guidelines. Georgia-Pacific goes full circle when it comes to paper recovery and recycling. Harmon Associates, a Georgia-Pacific company, is one of the world's largest buyers and sellers of waste paper. And Georgia-Pacific uses nearly 4 million tons of recovered paper and paper board in its facilities... and that's just part of the story.

## Chlorine Usage

All of Georgia-Pacific Commercial's manufacturing facilities are elemental chlorine-free (ECF). The Environmental Protection Agency (EPA) has deemed ECF processing as the "Best Available Technology" for the pulp and paper industry. Scientific data shows that ECF is fully protective of the environment. Totally Chlorine Free (TCF) virgin pulp and paper mills are less efficient in the pulping process and thus must use more wood or wood fiber to generate the same amount of finished paper. This means more trees and more energy are needed to accomplish the same task.

## Energy Efficiency

Georgia-Pacific generates 50 percent of its energy requirements from self-generated renewable energy, such as biomass energy made from operational by-products and a small amount of hydro-electric power. Our aggressive investments in these types of energy efficiency projects also enable us to actively manage CO2 emissions. GP accounts for 8% of the total electricity generated from renewable wood and wood waste biomass in the entire U.S.

## Water Usage

All of Georgia-Pacific's paper mills reuse vast amounts of water during papermaking by recycling used water from one part of the process to other areas within the mill. We have active programs in place in our integrated pulp and paper mills that have reduced water consumption by an average of 15 percent since 2000.

## Sustainable Forestry

Georgia-Pacific Commercial no longer owns timberlands, but we know that sustainable forestry is the backbone of responsible paper production. We support the protection of forest areas that have unique or endangered biological and ecological characteristics throughout the world. We also provide cooperative support to independent landowners through our Forest Management Assistance Program (Forest MAP). Today, this helps approximately 800 landowners, whose lands total 900,000 acres, practice sustainable forest management and maintain biodiversity.

## Environmental Seals

You will see Georgia-Pacific's environmental seals on a number of our products that are specifically designed and manufactured to meet environmentally friendly criteria. We believe that these standards represent the most environmentally preferable status of paper products that support the Environmental Protection Agency's strategies of Reduce, Reuse, and Recycle.



## Third Party Certification

Third party, environmentally-focused non-government organizations have grown in recent years. These groups, such as Environmental Choice and Green Seal, differentiate themselves by promoting their own manufacturing and recycling guidelines. For a fee, manufacturers can have their products "stamped" and certified that they meet the guidelines set-up specifically by these organizations.

The Environmental Protection Agency is federally charged with conserving natural resources and energy by managing materials more efficiently through manufacturing standards, regulatory requirements, and recycling guidelines. In addition, they include strategies around reuse of resources and reduction of waste. We adhere to or exceed all EPA manufacturing standards as well as actively participate in all three of its strategies surrounding reduce, reuse and recycle. Finally, one of the groups mentioned above, Green Seal, requires Process Chlorine Free (PCF) technology, and as seen in the section on chlorine, ECF processing is the best available technology and is currently used by Georgia-Pacific Commercial.

## Safety and Health

Across the globe, protecting and sustaining the safety and health of our employees, our communities and the environment are our highest priorities. We follow all initiatives prescribed by chemical manufacturers and adhere to our own high safety standards. We offer our customers many product options, including enMotion® and the Safe-T-Gard™ Door Tissue Dispenser, which can help maintain a more healthy and hygienic environment.

## Green Cleaning

Green cleaning's holistic approach encompasses cleaning chemicals, paper, liners, equipment and cleaning processes and procedures. Through our hygienic and environmentally responsible products, we contribute to this growing effort to protect human health and reduce the impact on the environment.

## Cost Benefits

Environmentally friendly doesn't always have to cost more. The Georgia-Pacific operational cost comparison (OPCC) defines the economic reasons why our customers choose Georgia-Pacific's paper products over other options in the market today. We conduct discovery calls with customers to determine their specific needs and create customized solutions to show how Georgia-Pacific products can benefit a business' bottom line.

### American Forest and Paper Association (AF&PA)

The national trade association of the forest, paper and wood products industry, which works on public policy to benefit the U.S. paper and forest products industry.

### Biodegradable

Materials that are capable of undergoing biological degradation when oxygen is present. Process requires bacteria, heat, moisture and time. Composting is a type of biodegradation.

### Chlorine Bleaching Classifications

A way of classifying the methods used to process paper. There are three chlorine bleaching classifications:

#### Elemental Chlorine Free (ECF)

A process where paper is bleached with a chlorine compound, such as chlorine dioxide. This manufacturing process meets all the regulatory requirements of the U.S. Environmental Protection Agency regarding effluent discharges for protection of the environment. All of GP processes are currently ECF.

#### Process Chlorine Free (PCF)

A process where recycled-content paper is bleached without the use of any chlorine or chlorine derivatives. The term is used only with recycled manufacturing facilities.

#### Total Chlorine Free (TCF)

A process where virgin paper is manufactured and bleached without the use of any chlorine or chlorine compounds. The term is used only with virgin pulp and paper manufacturing facilities.

### Compostable

Materials that are able to be composted or will biodegrade in warm, moist conditions with oxygen and bacteria over periods of several weeks to several months.

### Comprehensive Procurement Guidelines (CPG)

A U.S. Environmental Protection Agency Guideline that promotes the use of materials recovered from solid waste to ensure the inclusion of recycled materials in the manufacturing of new products. The Guideline is a key component of the government's "buy recycled" initiative and is authorized by Congress.

### Environmentally Preferable Products (EPP)

Term used by the U.S. Environmental Protection Agency (EPA) to define products or services that reduce a company's impact on human health and the environment, when compared to competing products or services that serve the same purpose. Examples of EPP include, but are not limited to, those which minimize waste, contain recycled content, conserve energy or water, conserve raw materials, etc. Specific standards for EPP vary among EPA and Non-Governmental Organizations, though EPA's primary directive is support of source reduction.

### Envision®

Georgia-Pacific's brand of towel, tissue and napkin products that delivers excellent value and conformance to the EPA guidelines for post-consumer fiber—making the brand an excellent solution for education, government, and other facilities that are sensitive to environmental concerns.

### EPA Compliant Paper Products

Paper products meeting the EPA Comprehensive Procurement Guidelines for recycled fiber content.

### GP Commercial Environmental Outreach Program

An effort by GP Commercial to educate businesses and building managers on how to improve the environmental sustainability of their usage of paper products. The effort will help customers and end users focus on the optimal intersection of user demands and environmental sustainability.

### Green

General term that refers to environmentally friendly initiatives and lifestyles, though the exact definition varies depending on whom you ask. It is important to find out what it means to your customers so you can address their needs appropriately.

### Green Cleaning

Using environmentally friendly cleaning products that don't endanger you, other people or the environment. The term also often includes the use of equipment that reduces the need for cleaning solutions and promotes healthy indoor air, the adoption of cleaning procedures that reduce exposure, and sometimes includes the use of recycled janitorial paper products meeting predetermined specifications such as the EPA Comprehensive Procurement Guidelines.

### Greenhouse Gases (GHG)

Components of the atmosphere that contribute to the greenhouse effect, which is the increase in temperature that the Earth experiences when certain gases in the atmosphere trap energy from the sun—a likely contributor to global warming. Some GHG occur naturally in the atmosphere, while others result from human activities such as burning fossil fuels. GHG include water vapor, carbon dioxide, methane, nitrous oxide and ozone.

### Greenwashing

The act of a company, government or other organization spending significantly more money or time on promoting perception of being green, rather than spending resources on environmentally sound practices.

### Leadership in Energy and Environmental Design (LEED)

The green building rating system developed by the U.S. Green Building Council provides standards for environmentally sustainable design and construction. Buildings meeting the requirements of these standards can be LEED Certified.

### Mill Broke

Any paper waste generated in a paper mill prior to completion of the papermaking process, up to and including the re-winder, slitter, sheeter, or coater at the end of the paper machine. It is usually returned directly to the pulping process. Mill broke is excluded from the definition of "recovered fiber".

### Natural Resource

Produced by nature, or naturally occurring. A natural resource may or may not be renewable.

### Non-Governmental Organization (NGO)

A private institution that is independent of the government, and pursues particular social objectives or serves particular constituencies. NGO activities range from research, information distribution, training, local organization, and community service to legal advocacy, lobbying for legislative change, and civil disobedience. Some non-profit organizations that issue seals or certifications for environmental products, like Green Seal or Environmental Choice, are sometimes classified as environmental NGOs.

### Old Growth Trees

Trees that have reached significant age and have experienced little or no direct disruption by humans.

### Post-Consumer Fiber

A fiber that has served its intended use, having completed its life as a consumer item, and has been diverted or recovered from the solid waste stream. Paper recovered from curbside collections is considered to be post-consumer.

### Pre-Consumer Fiber

A mill or manufacturing scrap, obsolete inventory, plant converting or printing waste, etc., that has been captured during a production process and returned inventory from wholesalers, merchants, converters, etc.

### Recovered Materials Advisory Notices (RMANs)

Published by U.S. Environmental Protection Agency to provide recommendations to government procurement agencies regarding the purchase of recycled content products. The RMAN contains recommended recycled content ranges for different product categories including, but not limited to, towels, napkins, bath tissue, and wipers.

### Recyclable

Materials that can be collected, separated or recovered from the solid waste stream, for reuse in the manufacture of another product, through an established recycling program.

### Recycle

The reprocessing of recovered materials into new products.

### Reduce

The act of using less of a product in order to limit the impact on the environment. Companies often reduce raw material needs, water usage, energy usage, air emissions and waste at the source.

### Renewable Material

A natural resource that can replenish over time. It is normally considered to be a material that is replenished by natural processes at a rate comparable to its rate of consumption. For example, wood fiber (trees) is a renewable resource.

### Reuse

Reusing products or by-products from processes, either for the same function or for a completely new function (as when ash from a power boiler is used in roads).

### Source Reduction

Refers to any change in the design, manufacture, purchase, delivery or use of materials or products (including packaging) to reduce the amount of natural resources used or the toxicity of the materials before they become municipal solid waste.

### Sustainable Forestry Initiative (SFI)

SFI is a fully independent organization. It was originally created by members of the American Forest and Paper Organization and designed to certify forests to insure they are being managed in a sustainable manner. SFI is the only forest certification program that includes a standard that applies to those who own land as well as those who procure wood from suppliers or landowners. SFI proactively works with family-owned forests, which provide 80% of GP's overall wood and fiber materials.

### Sustainability

Although multiple definitions exist, the term generally refers to processes that meet the needs of the present without compromising the ability of future generations to meet their own needs, including critical aspects of corporate responsibility—environmental, social and economic.

### Sustainable Forestry

A forest management practice that sets very broad social, economic and environmental goals in order to strike a balance between society's increasing demands for forest products and benefits, and the preservation of forest health and diversity.

### U.S. Environmental Protection Agency (EPA)

A government agency that provides funding, research, education and assessment efforts in support of environmental science. It also develops and enforces environmental regulations pursuant to laws enacted by Congress. Its mission is to protect human health and the environment.

### U.S. Green Building Council (USGBC)

A non-profit organization devoted to creating standards intended to shift the building industry towards improved sustainability by targeting how buildings are designed, built and operated.