



Change for the Future

CXP Wood



The Era of Using Wood Instead of Plastic

Introducing the Material



Cellulose
X-linked
Polymer

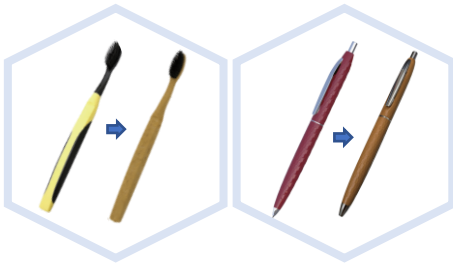
Using Wood Like Plastic?

CXP is a wood material that replaces plastic. The main ingredient, wood, comes from forestry byproducts. By utilizing these byproducts, it supports sustainable forest management.



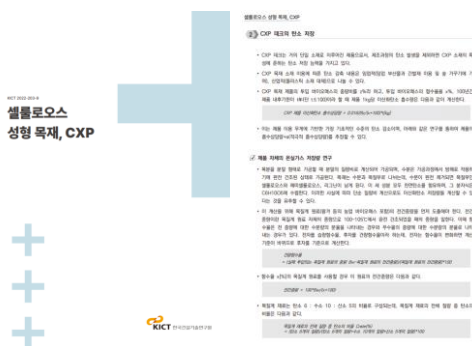
Utilizing Domestic Wood in Korea

CXP is not simply made from processed imported wood; it is made from forestry byproducts generated in Korea. At a time when utilizing domestic wood is increasingly emphasized, consumers can allocate related budgets flexibly by choosing various products made from domestic wood



Various products made from CXP are already on the market, and with sufficient lead time, production of needed products is also feasible.

Carbon Sequestration Report on CXP



In 2023, a paper was presented at the Korean Composite Materials Society on active carbon sequestration using CXP (more than 19.44kg).

Additionally, the 'Korea Institute of Civil Engineering and Building Technology' released a research report on the carbon sequestration of decks (flooring) made from CXP in 2023.

The research documents include information on CXP's inherent carbon sequestration capabilities. CXP is a technology proven for carbon sequestration.

Introducing the Material

Aligned with Plastic-Free Policies

The use of CXP material not only utilizes domestic wood but also achieves simultaneous reduction in plastic. Specifically, for PP/PE products, their carbon emissions are registered in the national LCI database. Therefore, using CXP products enables quantitative reporting of carbon reduction.

Active Carbon Sequestration, Including Forest Management

Carbon Storage over 10 Years
with CXP Products

19.44kg
or More

The calculation is based on a 10-year period due to research conducted on the increase in carbon storage through forest management (difference in wood growth).

Passive Carbon Reduction Calculated Only for Plastic Substitution

The amount of carbon dioxide emissions
generated from the use of
PE products

4.69kg / kg

(2.26 during production
+ 2.43 during incineration)

The amount of carbon dioxide emissions
generated from the use of
PP products

4.21kg / kg

(1.78 during production
+ 2.43 during incineration)

Based on the weight of purchased CXP products (density 1.1), it is possible to report the reduction in carbon dioxide emissions compared to PP or PE products (density 0.9).

E.g.

- When using 4.4kg of CXP products
> it replaces 3.6kg of PE products.

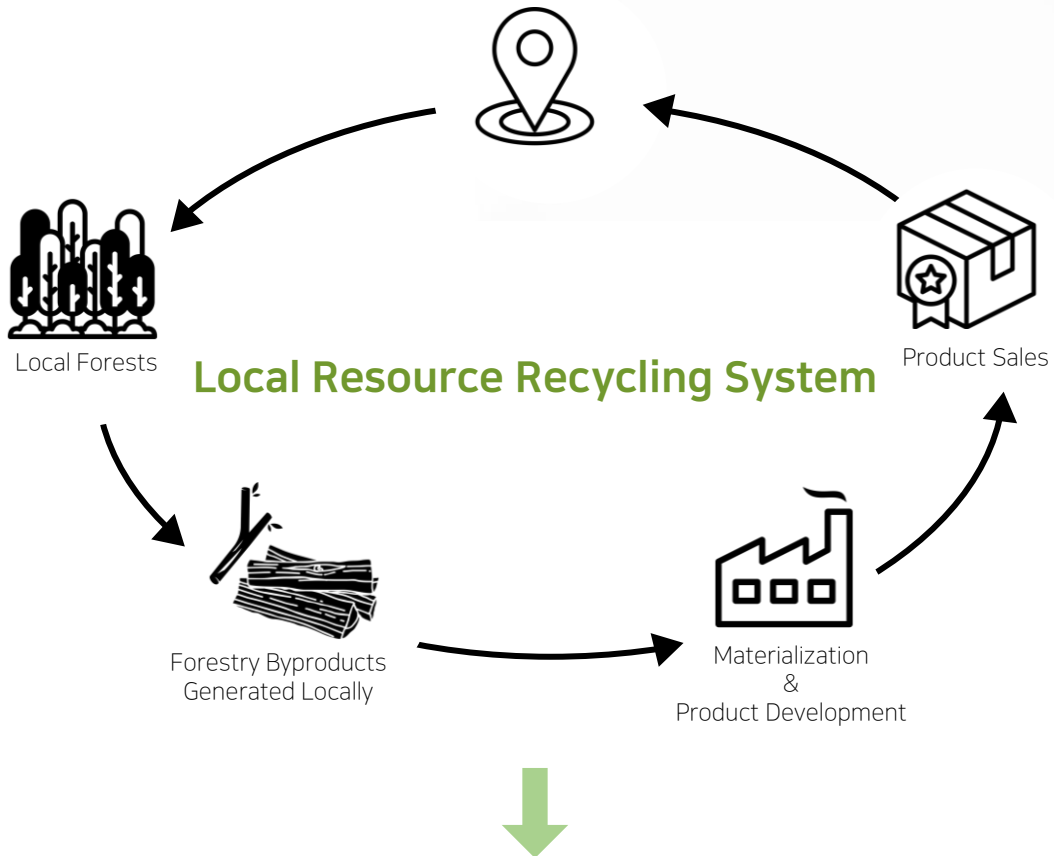
= This results in a reduction of 16.884kg
of carbon dioxide emissions.

4.4kg of CXP products is equivalent to 44
of our 500ml cups.



Introducing the Material

Capable of Upcycling Local Byproducts

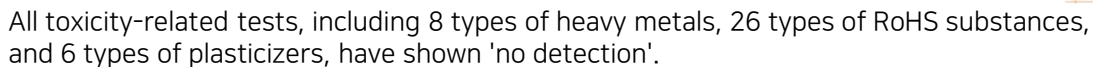


It is possible to establish a **local resource recycling system** that upcycles and consumes byproducts generated in the region.

Injection molding companies that materialize these byproducts into products can utilize local companies, thereby **contributing to the revitalization of the local economy.**

Introducing the Material

CXP is a material that has been recognized for its non-toxicity and excellence through various international standard tests and global exhibitions. Many major corporations have already applied CXP to their products or are currently researching its applications.



Introducing the Material

Replaces Various Plastics

Just as there are various types of plastics under the single name "plastic," different product categories require different physical properties. CXP is continually expanding its applications through ongoing research and development to replace a wide range of plastics.



Slow Degradable

CXP-SD

It is a commonly used grade with high durability, strength, and water resistance, making it capable of replacing most plastics.



High Impact

CXP-HI

It is tough and strong, and does not break easily. It is suitable for parts that require frequent assembly or disassembly, and for products that demand high strength.



Bio Degradable

CXP-BD

The degradation period can be adjusted from 1 month to 3 years. This makes it easy to produce short-term agricultural materials, single-use items, and more.



Elastomer

CXP-EL

It is soft and highly stretchable. The elongation rate can be adjusted by blending it with standard grades. It is suitable for products that require flexibility.



Anti Microbial

CXP-AM

It has antimicrobial properties that inhibit the growth of bacteria and viruses. This makes it suitable for items that are frequently touched by many people.



Sheet Forming

CXP-SF

This grade is suitable for blow molding and vacuum forming of single-use items. It has excellent moldability, allowing for the production of a wide variety of products.



Flame Retardant

CXP-FR

It has antimicrobial properties that inhibit the growth of bacteria and viruses. It can be applied to items that experience frequent contact by multiple users.



Master Batch

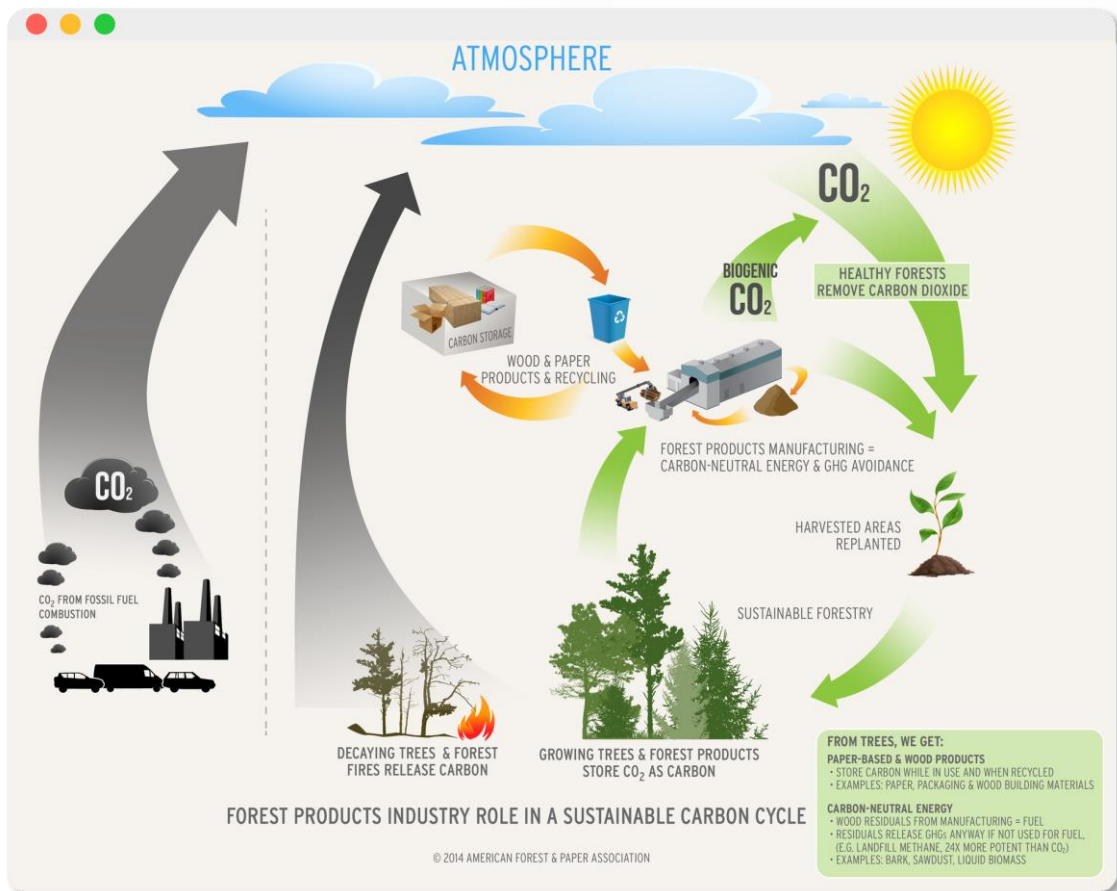
CXP-MB

It easily blends with other materials, minimizing property degradation and allowing the use of wood.

Introducing the Material

Supports Forest Management

CXP material utilizes unused forest biomass to create products that can replace various plastic applications. It is gaining attention as a technology that can dramatically increase the utilization rate of domestic (Korea) wood, which is currently limited to just 17% of domestic wood quality.



Recently, the declining use of wood as an energy source to replace petroleum and coal has led to a decrease in carbon sequestration capability. However, CXP transforms unused forest biomass into products, effectively trapping carbon dioxide for a much longer period, thus enabling a significant reduction in the absolute amount of carbon dioxide.

CXP material has obtained forest certification, which tracks the entire process. It is certified that the use of this material supports forest management.



For special events, create a personalized touch with

Laser Engraving

Laser Engraving

CXP products can be customized with laser engraving, which burns the surface to embed your desired message. You can engrave logos or text according to the product size to commemorate special moments. The natural feel of laser engraving, as opposed to printing, adds a unique and sentimental touch.

- Promoted eco-friendliness by using CXP products at various international events and public institutions, including the World Forestry Congress, PEFC Vietnam, Daejeon Tourism Organization, and the Forest Education Institute.

