





Cellulose  
X-linked  
Polymer



## **BIOMASS POLYMER CXP**

- 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.

# The Era of Using Wood Instead of Plastic



## 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)

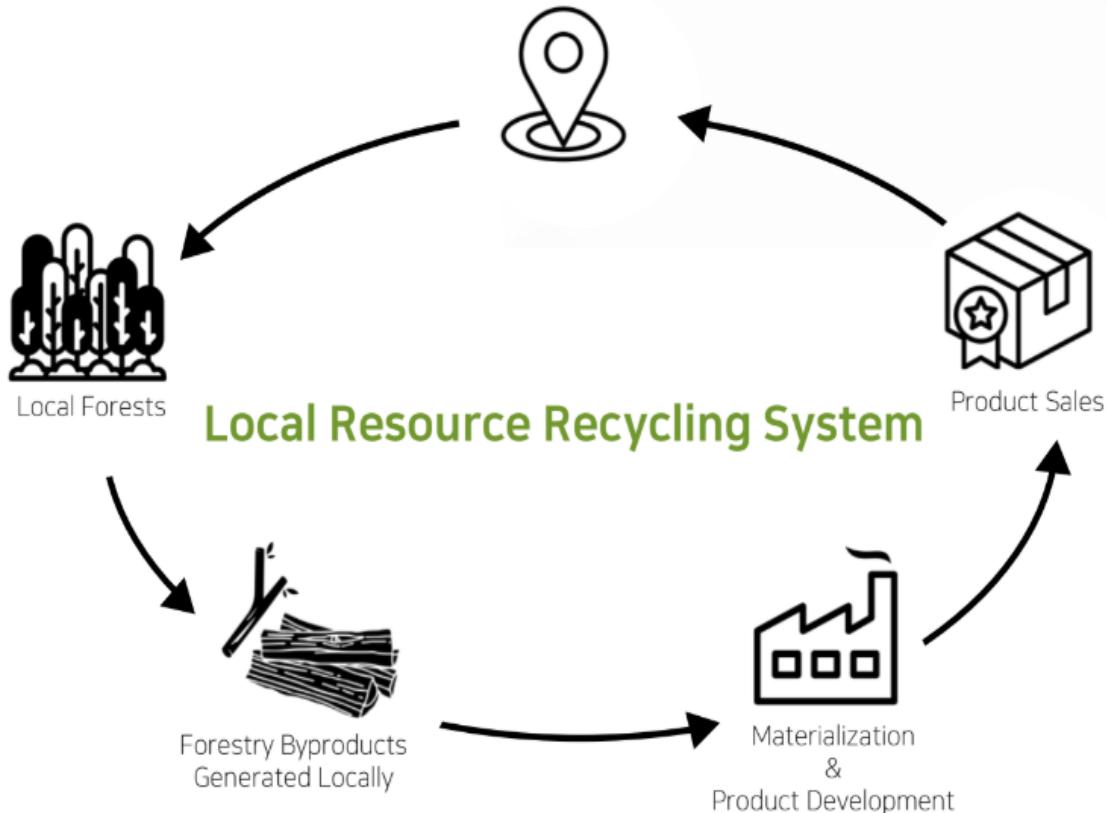
Based on the weight of purchased CXP products (density 1.1), it is possible to report the reduction in carbon dioxide emissions compared to PP or PE products (density 0.9).

- The use of CXP material not only utilizes domestic wood but also achieves a 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.

# 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.

# CXP's Differentiating Points



## Biomass exposure

The high biomass content allows the biomass to be visible on the surface of the product, and the more it is used, the more exposed it becomes, giving it a different feel from regular plastic products.



## Natural and random patterns

Due to its high biomass content, the moisture within the biomass creates a natural pattern. Use it as a natural design element, differentiating it from smooth plastic .



## Matte properties

This material doesn't emit much light, making it ideal for creating a calming atmosphere. By adding processing to the mold, you can create a pottery-like feel.

# CXP- Different product categories



## CXP-SD

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



## 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.



## 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.



## 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.



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.



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.



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.



Master  
Batch

## CXP-MB

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

## 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.

# CXP- Products



## CXP BrushNest

Give your brush a green  
place to crash.

Size: 180\*25 mm



## CXP EcoMane

For hair that flows and  
a planet that grows.

Soft Brush Square  
Size: 250\*83

Soft Brush Round  
Size: 225\*70



# CXP- Products



## CXP MugLife

Sip sustainably, smile endlessly.

Mug(300ml):  
Size: 84ø\*88 mm

Mug (500ml):  
Size: 98ø\*100 mm



## CXP Leaf 'n' Clean

Because your tongue  
deserves a green swipe.

Size: 170\*30 mm



# CXP- Products



## CXP SipStack

One cup, endless eco cheers.

Size: 670\*91 mm



## CXP GreenPan

Cook, serve, and save the Earth in one scoop.

Size: 230\*145 mm



# CXP- Products



## CXP SipCycle

From smoothie mornings to  
chai nights - eco stays  
in style.

Size: 90ø\*160 mm



## CXP RootWise

This product is 100%  
recyclable.

Size: 118ø\*105 mm



# CXP- Products



## CXP EcoPlatter

Serving looks, without  
serving plastic.

Size: 330\*330 mm



## CXP EcoScript

Because every word  
deserves a greener pen.

Gel Pen

Ballpoint Pen



# CXP- Products



## CXP BubbleNest

Let your soap breathe  
while the planet sighs  
in relief.

Size: 85e\*8 mm



## CXP GreenGrip

Hang tight to fashion, let  
go of plastic.

# CXP- Products



## CXP ChopCycle

Slice sustainably, dice with dignity.



## CXP HexaNest

Six sides of style, one side of planet love.



# CXP- Products



## CXP EcoDesk

Hold your pens, not the planet hostage.



## CXP Earthlery

Fork the plastic, spoon the planet.



# CXP- Products



## CXP Biobox

Tight on freshness,  
light on footprint.



## CXP NatureServe

Serve greens, the  
green way.

Size: 2450\*85 mm



# CXP- Products



## CXP EcoGrin

Smile wide, decompose  
with pride.

Size: 200 mm



## CXP Verdicle

Stacked fresh,  
stacked green.

100% recyclable fresh  
harvest, zero footprint  
your wall of wellness.