100% bio-based

lignin leads the way



UPM ight: sse silk 200 g/m². Printed 12/2017. Copy UPM Fine



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What Is Lignin?

Lignin is a complex organic polymer found in the cell walls of all plants. It is the second-most abundant biopolymer, after cellulose. In nature, lignin, based on its specific molecular structure, provides mechanical strength, and it protects plants against moisture, UV-radiation, and bacterial and fungal attack.

UPM, together with our partners, are making various types of lignin available globally, in industrial quantities, and with tightly controlled and constant quality.

As a bio-based, non-toxic, sustainably sourced raw material, lignin can help us significantly reduce our dependency on fossil raw materials in literally all aspects of everyday life.

UPM's lignin solutions allow producers to increase the renewable content of materials, while often generating significant cost-savings. At the same time, producers and end-users can rely on highest levels of product performance.

> A few examples of how we've used lignin as a substitute for fossil-based raw materials:

Versatility

Lignin is an incredibly versatile raw material

We have successfully developed and implemented lignin as a bio-based, sustainable ingredient and alternative to fossil-based raw materials together with partners and other collaborators.

Today, we are in a position to offer a tried and tested, cost-effective, portfolio of lignin-products, tailor-made for specific end-uses such as composites, rubber products, adhesives and resins, polymer foams, chemicals and as raw material for carbon fibers.





ANIMAL FEED Lignin's antioxidant properties make animal

eed healthier and better for the animals and the environment



Lignin works as a sustainable raw material alternative to fossil-based substances.

WOOD-BASED BUILDING MATERIALS **UPM BioPiva™** technology enables replacement of toxic petro-based phenol in phenolic resins.

Partner with Us

We collaborate with a broad range of companies and research facilities on how to modify and use lignin as a bio-based raw material in everyday items and we are always excited to explore new applications.

Please contact us if you are working on a new idea that could be combined with our know-how and developed into a new business opportunity.

CONTACT OUR TEAM: lignin@upm.com

VISIT OUR WEBSHOP: shop.upmbiochemicals.com

Our lignin 100% bio-based 100% performance

Sustainability

Each and every one of our lignin's current applications offers a sustainable alternative to fossil-based raw materials. This is yet another example of our determination to conduct successful business from a sustainable and innovative foundation.

Our lignin is 100% bio-based which means that our entire portfolio of lignin products is based on renewable raw materials.

