



BLEACHED
HARDWOOD
KRAFT PULP
GUAÍBA



PRODUCT:

**BLEACHED HARDWOOD
KRAFT PULP**

BRAND NAME: GUAÍBA PULP

DOMINANT WOOD SPECIES: EUCALYPTUS SALIGNA, DUNNI, GRANDIS AND HYBRIDS

**GENERAL DESCRIPTION
OF GUAÍBA**

CMPC's BHK Pulp is made mainly based on Brazilian Eucalyptus wood. It is known and recognized throughout the world for its ability to produce paper with good formation, smooth surface, softness, good opacity and high bulk. It is used as a raw material in a range of products from premium tissue paper, to printing & writing paper, paperboard, and other specialty products.

Versatility, fiber flexibility, fiber-to-fiber uniformity, low fines, good burst and tensile strength when properly refined, provide soft and bulky tissue.

PREMIUM QUALITY GRADES OF PAPER:

- **Structural softness** - Guaíba pulp shows a good level of fiber coarseness which is desirable when applied to tissue papers that require structural softness. For eucalyptus trees, increasing coarseness augments the specific paper volume (bulk) or reduces paper compaction.

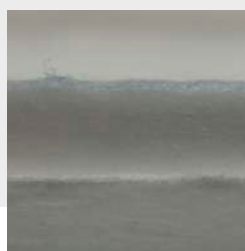
- **High Bulk** - Guaíba pulp is a fair representative of Brazilian pulp, with high bulk, which can be used in several segments. It is known to provide bulky tissue in an advanced paper machine setup, like layered head boxes and structured pattern felts.

PRINTABILITY

- **Uniform paper formation and good opacity** - important for all grades of fine papers. Guaíba pulp is a short-fiber eucalyptus pulp containing a high number of fibers per gram.

- **High Brightness** - Guaíba is eucalyptus pulp of high brightness ($\geq 89\%$ -ISO 2470).

- **Very High Cleanliness** - Guaíba is a very low-dirt pulp (≤ 2.5 mm²/kg A.D. -ISO 5350-2)





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MAIN APPLICATIONS

TISSUE

- Softness is unquestionably the most desirable characteristic in premium tissue papers. In this respect, Guaíba shows remarkable performance because of its high number of fibers and low coarseness.
- Guaíba pulp has good unrefined tensile strength in the typical tensile index for premium tissue.
- Guaíba pulp shows the good unrefined tensile strength required for premium tissue paper and good performance in conventional paper machines.

SPECIALTIES

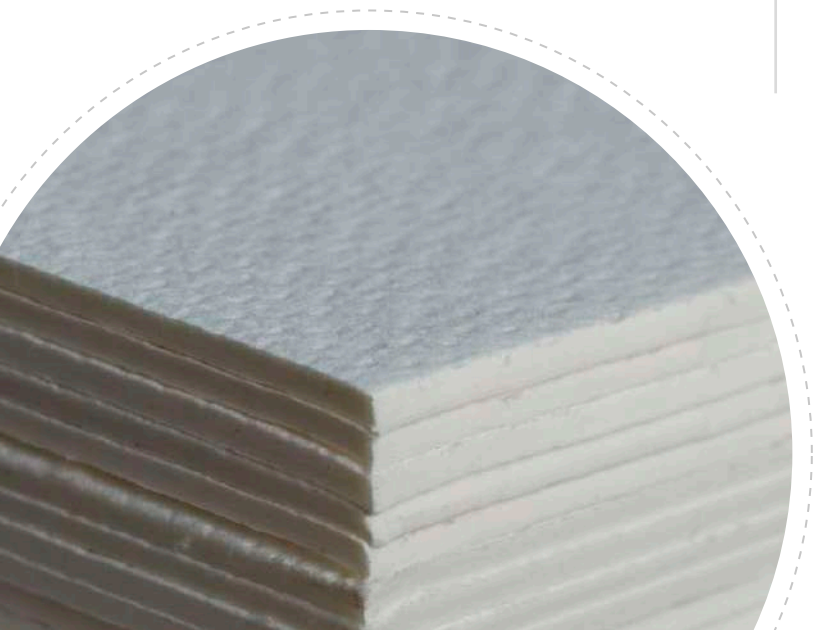
(DECOR, CIGARETTE, LABEL, THERMAL PAPERS, VISCOSE PRODUCTION)

- Guaíba pulp has high porosity which is an important parameter for special papers such as decor and filters. Additionally, it shows high dimensional stability to ensure excellent quality in papers that require superior printing.

- Very high cleanliness – Guaíba pulp is a very low-dirt pulp, which is appreciated in the viscose production.

PRINTING & WRITING

- Guaíba pulp has allowed papermakers to consistently produce premium quality grades of printing & writing papers, with a uniform paper formation and good opacity.
- Thanks to its high fiber population (20 million fibers/g), Guaíba pulp is able to ensure excellent formation and smoothness attributes.
- High bulk – Guaíba pulp is a high-bulk pulp, which can be used in several segments. It is known to provide bulky paper in advanced paper machine setups.
- Smoothness is one of the properties most looked for in coated papers, especially art papers with matt finish, for which surface defects diminish print quality.

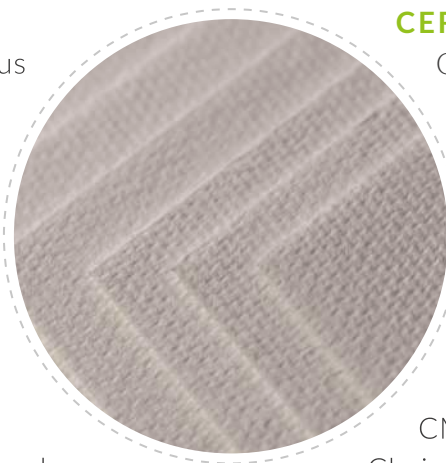




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BOARD

- The best opacity/elasticity modulus ratio is desirable to avoid show-through and cracks/creases of folded cartons and boards; Guaíba pulp presents good performance in this ratio.
- Bulk and stiffness are important properties for most board applications. Guaíba pulp has a high bulk as well as a good stiffness, to produce a board which performs well in folding and creasing.
- The best opacity/air resistance ratio is also desirable to avoid show-through and pigment penetration in lightly coated top liners. Guaíba performs well in this aspect.



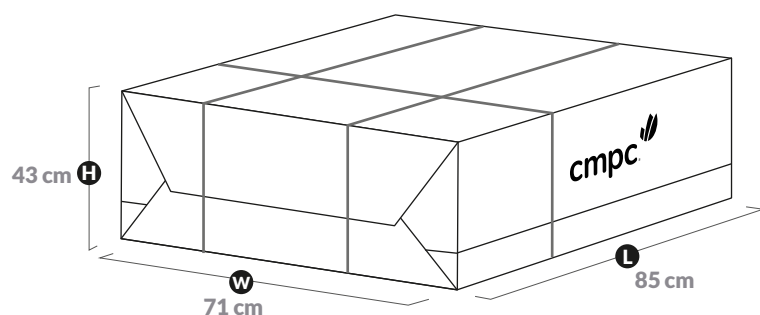
CERTIFICATIONS

CMPC owns large eucalyptus plantations to guarantee stable supply of wood raw material over the long term.

Guaíba BEKP pulp has been certified according to the FSC™ (FSC-C007488) Chain of Custody standard. Likewise, all products manufactured by CMPC Pulp have CERTFOR - PEFC Chain of Custody certification.



BALE INFORMATION:



Guaíba is in compliance to be used in contact with food and has the approval for use in Nordic Ecolabel paper products and EU Ecolabel for graphic and tissue Paper.