

Technology Offer

CSIC/LR/023

Sustainable advanced technical paper for artistic and industrial printing



High grammage technical paper designed for demanding mechanical printing processes such as intaglio, dry stamping, or relief printing. Made from plant fibers and reinforced with natural residues and additives, it offers durability, print quality and sustainability.

Intellectual Property

Priority patent application filed

Stage of development

TRL4 (Laboratory).

Intended Collaboration

Licensing and/or co-development

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Market need

The printing, publishing and premium packaging industries require substrates capable of withstanding demanding printing processes and guaranteeing superior quality. Conventional papers have low durability and require pre-treatments that make the process more expensive and increase water consumption. Hence, the need for a more resistant, versatile and sustainable substrate that simplifies production without compromising the final quality.



Proposed solution

The material is manufactured using recycled plant fibers, specifically eucalyptus and linen, and is reinforced with natural additives (nanocomposite, based on fibrous clays and polysaccharides).

The formulation of this paper eliminates the need for pre-wetting, reducing production stages and water consumption. With a weight of over 200 g/m², it can withstand up to 5 tons of pressure. It is compatible with water-based and oil-based inks and can incorporate preservation coatings (ISO 9706). Ideal alternative to current premium papers, with great potential for industrial transfer.

Competitive advantages

- High mechanical strength and tensile resistance, withstanding up to 5 tons.
- No pre-humidification required, simplifying processes and reducing resources.
- Compatibility with artistic and industrial printing systems.
- Extended service life. Complies with ISO 9706 for permanence and durability.
- Cross-sector applicability, suitable for art, publishing, packaging, and decoration industries.