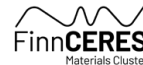




COLORANTS AND PRINTING INKS



TREE2INK: RENEWABLE BLACK INK FROM WOOD



FinnCERES, (Aalto University, VTT) | Finland



Nina Pulkkis | nina.pulkkis@photino.fi

A fully renewable black ink made from wood-based carbon and cellulose, offering a bio-based alternative for printing and dyeing.

Black pigment is everywhere — in inks, coatings, plastics and textiles — and almost all of it is fossil-derived carbon black. Tree2Ink replaces it with wood. Lignin, an abundant side stream of pulp production, is converted into carbon by a chemical route running below 200 °C, instead of the 800-1000 °C required for conventional pyrolysis, and is then combined with cellulose nanofibres as a transparent binder in a single ball-milling step. The result is a fully renewable black pigment and ink for printing, dyeing and material colouring, with surface chemistry that makes it compatible with many matrices. Developed at Aalto University and VTT within FinnCERES.

