
ECOUF–Development of a new generation of urea–formaldehyde resins with low formaldehyde emission

The objective of this project is to develop an innovative UF resin synthesis with low–formaldehyde emissions, based on some key aspects:

- Assessment of the impact of the two processes in the polymeric structures formed during synthesis and in the quality of the final produced resins;
- Rigorous control of the reaction progress, by online FT–NIR monitoring;
- Complete physical–chemical characterization of the resins produced;
- Identification of the physical–chemical characteristics of the resins that are associated to high internal bond strength and low formaldehyde emission of the wood–based panels produced with these resins. Use these characteristics as targets for the synthesis processes.
- Systematic optimization of the synthesis processes.

Title of project: ECOUF–Development of a new generation of urea–formaldehyde resins with low formaldehyde emission

Support Program/Supported by/Sponsored by: EC (FEDER) and National funding (FCT)

Duration: 3 years

Partner: FEUP (Faculty of Engineering– University of Porto) and IPV (Polytechnic Institute of Viseu)

Responsible for project/Project Leader/Contact: Luisa Carvalho (lhcarvalho@estv.ipv.pt)