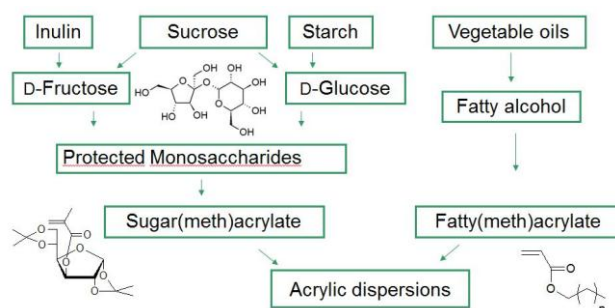


Water-based saccharide containing resins for wood coatings as substitute for methyl methacrylate containing dispersions



Environmental consciousness leads to the substitution of solvent-borne coatings by waterborne products and usage of renewable raw materials. Novel polymer dispersions with high amount of renewable resources are being investigated at Fraunhofer WKI as binders for waterborne adhesives and coatings for wood and wood-based materials. Sugar derivatives are incorporated in acrylic dispersions, which exhibit equal and also novel properties compared to the commercial petrochemical products. From low-molecular saccharides as starting material radically polymerisable sugar methacrylates has been synthesized in two-steps reactions which were copolymerised with commercial and renewable acrylic monomers by means of emulsion polymerisation. Renewable resources are present at a rate of more than 40% based on the solid content of the binder. The generated lab-scale product is preferably suitable for furniture lacquers.



Title of project: Water-based saccharide containing resins for wood coatings as substitute for methyl methacrylate containing dispersions

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