



# Upscaled monomer syntheses and polymerizations!

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We succeeded in scaling up the reactions in 2 L reactors. The monomers were then polymerized into various BioNIPUs in a 2 L reactor with modified agitator suitable for high viscosity reaction mixtures.

The polymerization process is performed solvent-free and under mild reaction conditions. For elastomer applications the NIPUs are used as such (Fig. 1), while for coating applications the NIPUs are subsequently dispersed in water (Fig. 2).



Fig. 1: upscaled NIPU polymer



Fig. 2: upscaled water-based NIPU dispersion for coatings

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