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(54) Title: HYPERBRANCHED POLYMERS

(57) Abstract: The present invention is directed to a process for preparing a hyperbranched polymer having a weight-average molar mass of at least 30,000, comprising coupling a first prepolymer having at least three functional end groups with a second prepolymer having at least two functional end groups by a dehydration condensation reaction between the end groups in the prepolymers. According to the present invention the number of arms and/or molar mass of the functionalized prepolymers can accurately be adjusted, thus affecting the properties of the resulting hyperbranched polymer in a desired way. Thus the polymer can be equipped e. g. with hydrophobic and hydrophilic parts. Also, the number of functional end groups, that optionally can be used for further chemical reactions, in the hyperbranched polymer can easily be adjusted to a desired level. The hyperbranched high molar mass polymer can be prepared in high yields without the use of organic solvents or linking compounds, which is advantageous from an environmental as well as an economical point of view.