

Title (en)

METHOD FOR PRODUCTION OF RADICALLY POST-CURED POLYMERS BY ADDITION OF REACTIVE ANHYDRIDES

Title (de)

VERFAHREN ZUR HERSTELLUNG RADIKALISCH NACHVERNETZTER POLYMERE UNTER EINSATZ VON REAKTIVEN ANHYDRIDEN

Title (fr)

PROCEDE DE PREPARATION DE POLYMERES POSTRETICULES PAR VOIE RADICALEIRE, PAR UTILISATION D'ANHYDRIDES REACTIFS

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Application

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Abstract (en)

[origin: DE10003939A1] The invention relates to a method for production of radically post-cured polymers. <u>In a first stage</u>, at least one, or several compounds (a), which are the reaction products of epoxidised fatty acid esters and /or epoxidised triglycerides with acrylic acid and/or methacrylic acid, are converted into the corresponding polyurethane (a*) and said polyurethane (a*) is subsequently radically post-cured, <u>in a second stage</u>, in the presence of at least one radical initiator (b), with the additional proviso that, in the second stage, a combination of compounds (a*) with one or several compounds (c) are used, where the compounds (c) are chosen from the group of the reactive anhydrides. The polymers thus obtained are excellent matrix agents for composite materials.

[origin: DE10003939A1] Preparation of a radically crosslinked polymer comprises reacting a compound(s) (I), comprising the reaction products of epoxidized fatty acid esters and/or triglycerides with acrylic and/or methacrylic acid, with aliphatic and/or aromatic isocyanates to give a polyurethane, mixing with a reactive anhydride and then crosslinking using a radical initiator(s). Preparation of a radically crosslinked polymer comprises reacting a compound(s) (I), comprising the reaction products of epoxidized fatty acid esters and/or triglycerides with acrylic and/or methacrylic acid, with aliphatic and/or aromatic isocyanates to give a polyurethane (PU), mixing with a second compound (II) from reactive anhydrides and then crosslinking using a radical initiator(s). An independent claim is included for a polymer-based work piece obtained as above.

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