

Title (en)

METHOD FOR DECOLORIZING A COLORED SYNTHETIC OR NON-SYNTHETIC POLAR-POLYMER MATERIAL

Title (de)

VERFAHREN ZUM ENTFÄRBen EINES FARBIGEN SYNTHETISCHEN ODER NICHT-SYNTHETISCHEN POLAREN POLYMEREN MATERIALS

Title (fr)

PROCÉDÉ DE DÉCOLORATION D'UN MATÉRIAU DE POLYMÈRE POLAIRE SYNTHÉTIQUE OU NON SYNTHÉTIQUE COLORÉ

Publication

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Application

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Abstract (en)

[origin: WO2021013849A1] The present invention is directed to a Method for decolorizing a colored synthetic and/or non-synthetic polar-polymer material, comprising the steps: exposing the colored synthetic and/or non-synthetic polar-polymer material to a polar solvent at a temperature of about  $\geq 30$  °C to about  $\leq 200$  °C, wherein the polar solvent comprises and/or is exposed to at least one polar decoloring agent for absorbing and/or adsorbing chemical modification of the color from the colored synthetic and/or non-synthetic polar-polymer material; wherein the colored synthetic and/or non-synthetic polar-polymer material to be decolorized comprises: - at least one organic aromatic coloring agent having a molecular weight Mw in the range of about  $\geq 250$  g/mol to about  $\leq 550$  g/mol, wherein the organic aromatic coloring agent is not a chemical reactive organic aromatic coloring agent that forms a chemical covalently bound; i) at least one synthetic and/or non-synthetic polar-polymer having a Mw of about  $\geq 1000$  g/mol, or ii) at least one synthetic and/or non-synthetic non-polar-polymer having a Mw of about  $\geq 1000$  g/mol; wherein the synthetic and/or non-synthetic non-polar-polymer comprises in addition: - at least one synthetic and/or non-synthetic polar-polymer having a Mw of about  $\geq 1000$  g/mol, and/or - at least one synthetic and/or non-synthetic polar-oligomer having a Mw of about  $\geq 600$  g/mol and  $< 1000$  g/mol, and/or - at least one synthetic and/or non-synthetic polar-additive having a Mw of about  $\geq 70$  and  $< 600$  g/mol; wherein the polar-additive is selected different to the organic aromatic coloring agent having a molecular weight Mw in the range of about  $\geq 250$  g/mol to about  $\leq 550$  g/mol.

IPC 8 full level

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