

Title (en)

METHOD FOR THERMIC DEPOLYMERIZATION OF PLASTIC MATERIAL AND DEVICE FOR ITS REALIZATION

Title (de)

VERFAHREN ZUR THERMISCHEN DEPOLYMERISIERUNG VON KUNSTSTOFFMATERIAL UND VORRICHTUNG ZU SEINER REALISIERUNG

Title (fr)

PROCEDE DE DEPOLYMERISATION THERMIQUE DE MATIERE PLASTIQUE ET DISPOSITIF POUR SA REALISATION

Publication

**EP 3784756 A1 20210303 (EN)**

Application

**EP 19730918 A 20190418**

Priority

- SK 500402018 U 20180421
- IB 2019053221 W 20190418

Abstract (en)

[origin: WO2019202546A1] Plastic material (4) is moved to the reactor's (2) vessel through feeder (1) in a pre-heated and compressed state at temperature at least 150°C. The plastic material (4) is during the depolymerization running in the reactor's (2) vessel led to the vessel continuously with a volume or mass flow which is regulated in order to achieve a stable level and/or stable mass amount of the material (5) in the reactor's (2) vessel. The plastic material (4) in the reactor's (2) vessel depolymerizes without the access of air and without catalyst during at least partial mixing at temperature ranging from 200°C to 500°C. The feeder (1) can have a form of the screw extruder with a heated casing and adjustable screw rotations, whereby it has a transport zone (11), a compression zone (12), a homogenizing zone (13) and suction (9). The flow of the plastic material (4) on the feeder's (1) outlet per minute is less than 5% of the volume or 5% of the mass of the material (5) in the reactor (2).

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2019202546A1

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