

Title (en)
PROCESS FOR PREPARING FOOD CONTACT GRADE POLYETHYLENE TEREPHTHALATE RESIN FROM WASTE PET CONTAINERS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON ZUM KONTAKT MIT LEBENSMITTELN GEEIGNETEM POLYETHYLENTEREPHTHALAT AUS PET-BEHÄLTER-ABFALL

Title (fr)
PROCEDE DE PREPARATION DE RESINE POLYETHYLENE TEREPHTHALATE APTE AU CONTACT ALIMENTAIRE A PARTIR DE RECIPIENTS PET JETABLES

Publication
EP 1244540 A4 20021106 (EN)

Application
EP 00965627 A 20000918

Priority
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• AU PQ294699 A 19990917

Abstract (en)
[origin: WO0121373A1] A process for preparing food contact grade PET from a waste stream containing PET and non PET materials is disclosed. The process involves the steps of sorting at least some of the non PET materials from the waste stream, followed by dividing the PET containers into flakes of preferable maximum size approximately 10mm, followed by washing the flakes in a hot aqueous medium containing alkaline materials and surfactants, preferably non-ionic, to remove particulate and absorbed contaminants from the surfaces of the flakes. This step is followed by de-watering and then drying the flakes to a moisture content of 0.1 % w/w maximum, and more preferably 0.01 % w/w maximum. The next step involves removing absorbed contaminants and moisture by heating and vigorously mixing the flakes under vacuum, preferably 1-10 millibar, more preferably 2-7 millibar and at a temperature less than the melting point of PET, preferably in the range 170-220 DEG C for at least 30 minutes, preferably at least 60 minutes. The final step involves melting the flakes in a screw extruder equipped for vacuum processing and extruding the molten material to form strands that are pelletised.

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IPC 8 full level
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Citation (search report)
• [X] US 5358119 A 19941025 - STAHL INGO [DE], et al
• [X] US 4830188 A 19890516 - HANNIGAN BENJAMIN R [US], et al
• [A] EP 0856537 A2 19980805 - ILLINOIS TOOL WORKS [US]
• See also references of WO 0121373A1

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