

Title (en)
MODULAR DEVICE FOR THE CONTINUOUS DEGASSING AND PRODUCTION OF POLYMER PRECONDENSATE WITH HIGH REACTION PRODUCT SURFACE TO VOLUME RATIO WITH GENTLE TREATMENT OF THE REACTION PRODUCT MASS

Title (de)
MODULARE VORRICHTUNG ZUR KONTINUIERLICHEN ENTGASUNG UND HERSTELLUNG POLYMERER VORKONDENSATE, MIT REAKTIONSTECHNISCH HOHEM VERHÄLTNIS PRODUKTOBERFLÄCHE ZU VOLUMEN, BEI SCHONENDER BEHANDLUNG DER REAKTIONSPRODUKTMASSE

Title (fr)
DISPOSITIF MODULAIRE POUR PRODUIRE ET DEGAZER EN CONTINU DES PRECONDENSATS POLYMERES A RAPPORT ELEVE DU POINT DE VUE REACTIONNEL ENTRE LA SURFACE ET LE VOLUME DU PRODUIT, AVEC TRAITEMENT DOUX DE LA MASSE DU PRODUIT REACTIONNEL

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Abstract (en)
[origin: WO2006100105A1] The invention relates to a modular device for the continuous degassing of reaction products of a carboxylic acid or a polycarboxylic acid with a multi-functional alcohol, suitable for application in the production of precondensates (or also prepolymers) and in which a high reaction ratio of product surface to product volume can be achieved by means of the construction and arrangement of the modular plates which corresponds to the generation of an intrinsic viscosity (IV) for the reaction product mass of 0.20 - 0.35 dl/g. Said device has a standard and modular embodiment and comprises at least three modules guaranteeing a low temperature gradient between product mass and heat transfer medium: 1. product inlet, 2. product outlet with a product sump and heating, 3. vapour collector and vapour exhaust. For subsequent increase of reactor capacity, planar embodied extension modules for the generation of additional product surface can be retro-fitted. The device guarantees a high specific product surface for maximizing the material exchange of low boiling components from the product with simultaneous avoidance of adhesive condensed solid components on the reactor shell.

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