

Abstract

5 The process for producing polymer blends by reacting at least one aminonitrile with water in the presence of thermoplastic polymers and optionally further polyamide-forming monomers comprises the following steps:

- 10 (1) reacting at least one aminonitrile with water at a temperature from 90 to 400°C and a pressure from 0.1 to 35×10^6 Pa to obtain a reaction mixture,
 - (2) further reacting the reaction mixture at a temperature from 150 to 400°C and a pressure which is lower than the pressure in step 1, the temperature and pressure being selected so as to obtain a first gas phase and a first liquid or a first solid phase or a mixture of first solid and first liquid phase
15 and the first gas phase is separated from the first liquid or the first solid phase or the mixture of first liquid and first solid phase, and
 - (3) admixing the first liquid or the first solid phase or the mixture of first liquid and first solid phase with a gaseous or liquid phase comprising water, which phase may contain thermoplastic polymers and optionally further polyamide-forming monomers, at a temperature from 150 to 370°C and a pressure from 0.1 to 30×10^6 Pa to obtain the polymer blend,
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- 25 wherein in one or more of the steps the thermoplastic polymers and optionally further polyamide-forming monomers are added.