

ABSTRACT

A process for preparing a polyamide by reacting at
5 least one aminonitrile with water comprises:

- 10 (1) reacting at least one aminonitrile with water
at a temperature from 100 to 360°C and a
pressure from 0.1 to 35×10^6 Pa to obtain a
reaction mixture,
- 15 (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 the pressure being
selected so as to obtain a first gas phase
and a first liquid or a first solid phase or
20 a mixture of first solid and first liquid
phase, and the first gas phase is separated
from the first liquid or the first solid
phase or from the mixture of first liquid and
first solid phase, and
- 25 (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 at a temperature from
150 to 360°C and a pressure from 0.1 to
30 $\times 10^6$ Pa to obtain a product mixture.