

ABSTRACT

Disclosed is a method for producing an aromatic polycarbonate which comprises subjecting to a transesterification reaction in a polymerizer at least one polymerizable material selected from a molten monomer mixture of an aromatic dihydroxy compound and a diaryl carbonate, and a molten prepolymer obtained from the monomer mixture, wherein a liquid mass of polymerizable material being transesterified in the polymerizer has an exposed surface, and wherein the transesterification reaction of the liquid mass of polymerizable material is performed under reaction conditions such that the following formula (1) is satisfied:

$$\log (S/V) \geq 2 \times 10^{-5} \times \overline{M}_n + 0.8 \quad (1)$$

wherein S represents an evaporation surface area (m^2) which is defined as the area (m^2) of the exposed surface of the liquid mass of polymerizable material; V represents the volume (m^3) of the liquid mass of polymerizable material in the polymerizer; and $\overline{M}_n$ represents the number average molecular weight of the aromatic polycarbonate to be produced. As compared to the prior art method, this method is commercially advantageous not only in that a high quality aromatic polycarbonate having high heat resistance can be obtained at high polymerization rate without suffering discoloration, entry of impurities and generation of a thermal decomposition product, but also in that a very large motive power for agitation is not needed and a scale-up of the polycarbonate production can be easily achieved.