

THERMAL CRYSTALLIZATION OF A MOLTEN POLYESTER POLYMER IN A FLUID

ABSTRACT

A process for crystallizing a polyester polymer by introducing a molten polyester polymer, such as a polyethylene terephthalate polymer, into a liquid medium at a liquid medium temperature greater than the T_g of the polyester polymer, such as at a temperature ranging from 100°C to 190°C, and allowing the molten polyester polymer to reside in the liquid medium for a time sufficient to crystallize the polymer under a pressure equal to or greater than the vapor pressure of the liquid medium. A process flow, underwater cutting process, crystallization in a pipe, and a separator are also described.

Figure 2