

A method for recycling PET bottles includes loading a receiving hopper of reactor with compressed, shredded raw mass of PET bottles and heating raw mass with constant stirring. Liquid molten plastic produced in the reactor is poured onto the bottom of a rotating disc of the centrifuge. Splashes of the molten plastic, which solidify in the form of strands of synthetic fibers are blown from the centrifuge by jets of compressed air into the discharge hopper, and then supplied to a molding device of heat-insulating material, wherein the strands of synthetic fiber are pressed to form the heat-insulating mats under the temperature of 180 ± 20 °C.