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(54) Title: PLASTIC PROCESSING SYSTEM AND APPARATUS

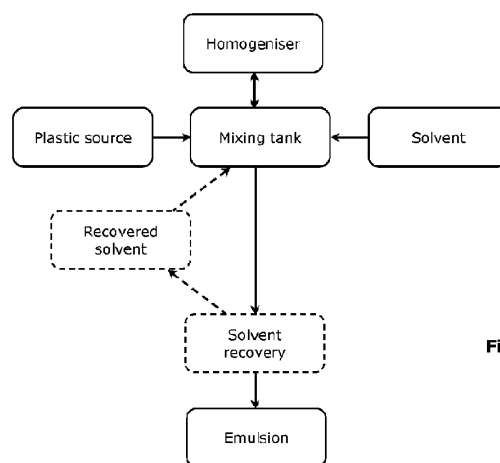


Figure 1

(57) Abstract: Described is a method of manufacturing a binder and the use of the binder to manufacture a reading mixture through mixing with aggregate, or a composite plastic product through the mixture of binder with particulate matter and/or fibre. The binder comprises mixing a plastic with two or more ethylenically unsaturated monomers in a mixing tank. The two or more ethylenically unsaturated monomers may have different homopolymer glass transition temperatures (T_g) wherein a first monomer structural unit has a homopolymer T_g of greater than 80° C and a second monomer having a homopolymer T_g of less than 80° C. The plastic may be selected from a plastic comprising a styrene homopolymer, a styrene copolymer, a copolymer of an alkene and vinyl acetate, acrylic polymer and nylon based polymers or co-polymers, polyester-based thermoplastic polymer resin, propylene-based thermoplastic polymer and homo-polymer of an alkene or combination thereof.

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