

Pharmaceutical Applications of Hot-Melt Extrusion

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Abstract

The pharmaceutical applications of hot-melt extrusion have attracted much interest since 1994, and over 100 papers have been published in the pharmaceutical scientific literature. Hot-melt extrusion is a widely used technique in the plastic industry and has been demonstrated to be a feasible method to prepare the drug delivery system and several kinds of dosage forms. The typical formulation is the mixtures of active pharmaceutical ingredients (API), functional excipients and processing aids. The advantages of hot-melt extrusion over traditional processes are solvent free, continuous, and independent of compression properties. This presentation will briefly introduce the equipment and process of hot-melt extrusion, and give several case studies of drug delivery applications using hot-melt extrusion.