



Figure S1. Schematic of multiflow vibrate-injection molding: (a, b) first flow; (c, d) second flow; and (e, f) third flow.

As shown in Figure S1, the mold is initially filled with melt at a certain injection pressure, and no melt could spill through the flash groove. The oscillatory pressure is subsequently introduced to form a second/third flow during the packing stage, and a part of the melt could be pushed out of the cavity through the flash groove.