

Supplementary information

Four videos are joined to this manuscript. We describe below the content of each video.

Video_1: Isotropic compaction of cohesive particles for $\eta^* = 0.005$. Only the particles in a thin slice passing through the center of the simulation box are shown.

Video_2: Isotropic compaction of cohesive particles for $\eta^* = 0.005$. The contact forces in a thin slice passing through the center of the simulation box are shown. The particles are not shown and the segments join touching particle centers. Segment thickness is proportional to normal force. Blue and red lines are compressive and tensile forces, respectively.

Video_3: Isotropic compaction of cohesive particles for $\eta^* = 3$. The contact forces in a thin slice passing through the center of the simulation box are shown. The particles are not shown and the segments join touching particle centers. Segment thickness is proportional to normal force. Blue and red lines are compressive and tensile forces, respectively.

Video_4: Isotropic compaction of cohesive particles for $\eta^* = 15$. The contact forces in a thin slice passing through the center of the simulation box are shown. The particles are not shown and the segments join touching particle centers. Segment thickness is proportional to normal force. Blue and red lines are compressive and tensile forces, respectively.