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Macroscopic rheological behavior of suspensions of soft solid particles in yield stress fluids

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Highlights

- Our model directly accounts for the evolution of the shape and orientation of the particles
- We study the application of our analytical model under shear flow conditions
- The overall transient response shows a rapid increase up to a peak followed by a gentle decrease
- Our model predicts that the steady-state behaviors are possible
- The macroscopic shear stress increases linearly with the yield stress for very soft particles

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