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Starch Suspensions with Different Fluids MELODY LIM, AUDREY MELVILLE, JOSHUA DIJKSMAN, ROBERT BEHRINGER, Duke University — A suspension made of starch particles dispersed in water displays significant non-Newtonian behavior for high enough particulate concentration. This surprising behavior has recently inspired a series of experiments that have shed much light on the possible mechanism behind this phenomenon. In our studies we assess the role of the fluid phase in these suspensions. We find that using fluids other than water can significantly alter the behavior of starch suspensions. Through mechanical tests of various kinds, we assess the interaction between starch particles and different liquids, and how this interaction affects the non-Newtonian behavior of starch suspensions.

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