

Extensional flow and adhesive behavior of lightly crosslinked polybutyl acrylates

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We will discuss here the extensional flow of some high molecular weight (300 kg/mole to 1100 kg/mole) acrylic acid functionalized polybutyl acrylates that are typically used for pressure-sensitive-adhesive applications. The presence of a few weight percent of acrylic acid will create weak stickers that do not modify much the structure or the linear rheological properties in shear but greatly affect the extensional properties; We will show the connection between the rheology in shear, the rheology in extension and the adhesive properties where the flow is quite complex and three dimensional.