Claims

1. A stopper for a syringe assembly, the stopper comprising a thermoplastic elastomer, wherein an outer surface of the stopper is non-lubricated, wherein the viscosity of the thermoplastic elastomer at 205 degrees C is ≥70.0 Pa·s at 1,000 s^{-1} shear rate, ≥12.0 Pa·s at 10,000 s^{-1} shear rate, and ≥3.0 Pa·s at 50,000 s^{-1} shear rate.

2. The stopper of claim 1, wherein the compression set of the thermoplastic elastomer is ≤ 50% when measured at 25% compression for 22 hrs at 70 degrees C.

3. The stopper of claim 1, wherein the hardness of the thermoplastic elastomer is approximately 40-70 Shore A.