



Motion control gel for hand-helds

Industry / Application: Medical / Hand-Held, Applicator Device
Location: USA

Background

A MedTech company was in search of a plastic-adhesive gel for their spring-driven device. Hand-held, single-use applicators are employed in surgical and drug delivery applications where a high degree of force is required which must be moderated across time and/or distance to control shock, actuation timing and haptics. The start-up needed a gel that would reside in a channel of the mechanism without migrating during shipping and storage, dampen motion appropriately, resist radiation sterilization, and exhibit plastic compatibility.

Challenge

Is it possible to formulate a precision viscous hydrocarbon-based motion control gel with broad industry utility, that can withstand radiation sterilization of the device with minimal performance degradation?

Solution

FLUOROCARBON GEL 896-V of *Nye Lubricants – a tacky, high-viscosity synthetic hydrocarbon grease.

- Narrow viscosity specification
- Good resistance to radiation and other sterilization processes
- Excellent adhesion to, and compatibility with, plastics
- UV light fluorescence for easy inspection

Results

This precision motion control gel was fully validated in the device. Furthermore, success has now been replicated in a new program involving design of a hand-held applicator for a very promising device.

Advantage

This motion control gel has cemented its place as the first in a series of products which help MedTech design engineers reduce pain and improve lives.