

Drying on a Fiber Matrix

In another example in which the physical form of the dried product enables value-added packaging, reconstitution, and delivery technology was demonstrated by Alcock in a 2010 publication that product solutions can be dried while suspended within a filter-like matrix of inert fibers [2]. This “coupon” of dried product + fiber matrix can then be packaged in a housing that is installed between a syringe containing diluent and a needle, and the product can be reconstituted as the diluent is pushed through the matrix, as the reconstituted product flows out into the needle and then the patient. Figure 5 shows a scanning electron micrograph of dried product on the fiber matrix as well as a photo of the assembled reconstitution/injection device.

The formulation of the product is of course very important as always, to provide stabilization. In the published case, live modified vaccinia virus Ankara (MVA)

Fig. 5 HydRis[®] by Nova Laboratories. *Top*: scanning electron micrograph of product dried on fiber matrix. *Bottom*: HydRis[®] system (Image courtesy of Nova Laboratories Ltd.)

