SAFE AND SURE:
Viscosity Testing Without Mistakes

Figure 1:
Brookfield DV-I Prime Viscometer with RV-4 Spindle

Quality Control in the Pharmaceutical Industry typically performs single point testing for viscosity to certify material acceptability before shipping to customers. A typical example for a skin cream is to specify an RV-4 spindle running at 20 rpm with the measurement needing to fall somewhere between 6000 and 8000 centipoise. (***See Figure 1***) This single point test is quick and easy to perform by any operator familiar with the instrument.

Other issues that bring added complication to the test are length of time for spindle rotation, temperature control of sample, and documentation of results. The alert operator carefully takes care of these details and makes sure that the test method is performed exactly the same way each time. When more than one operator has responsibility for the test, attention must be given to training and common knowledge of correct methodology.

Little appreciated is the possibility of using an instrument that can do everything automatically without operator involvement. Of special importance is the requirement that the instrument run in stand-alone mode. A possible candidate, ***shown in Figure 2***, allows the QC Department to create the test using software (***See Figure 3***) that details the steps mentioned in the method.

Figure 2:
Brookfield DV-II+Pro Viscometer with automatic test capability

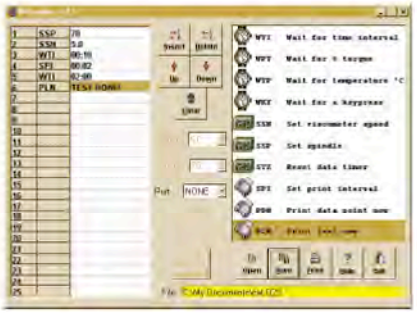

Figure 3:
DV Loader Software allows QC to create detailed tests which run automatically

The software program can be downloaded into the head of the viscometer and stored as a test which executes automatically with the push of a button.

Some pharmaceutical companies have started to take advantage of this instrument capability. It is proving especially useful in performing not only the initial QC test, but also the shelf life tests that must be repeated for some period of time after the product ships.

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