DYNE TEST PENS.

INFORMATION SHEET

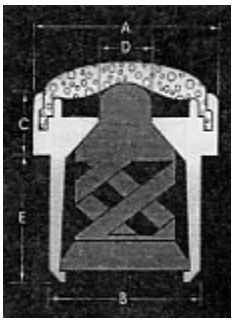
Several types of Dyne Pens are readily available.

Most rudimentary is a nominal go/no go tester: Above a certain treatment, this pen marks the surface; below this level, the ink disappears. These pens identify and permanently mark the treated side of PE and PP films — aside from this, they have little use, since their initial accuracy is undocumented and their design is subject to contamination.

A second style is formulated at several dyne levels, enabling the user to test over a range of treatments. Generally, these markers are interpreted based on which dyne level takes closest to two seconds to form beads (similar to the standard ASTM and TAPPI methods). These test markers are easy to use and, when first used, often quite accurate.

Unfortunately, their "Magic Marker" style nibs serve as perfect conduits for contamination of almost any kind, including machine oils, air born lubricants, plasticizers, slip additives, etc. The very wicking qualities which facilitate their use make them self-contaminating as well. This dynamic interaction between the instrument and the substrate essentially eliminates such wicking style applicators for serious dyne testing.

The Dyne Technology supplied test pen is based on a valve tip applicator. The principle is simple: Keep the testing part of the pen away from the fluid storage part of the pen (in other words, no wicking from the substrate). The diagram (right) demonstrates how that is accomplished; by pressing the tip firmly down, the valve is opened and fresh fluid floods the tip; this flushes it clean, and allows the tester to lightly pass over the sample to accurately determine dyne level. Results are based on how long the test solution takes to form beads on the sample surface.



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