

## Gel Capsule Rupture Testing

### REQUIREMENT

A pharmaceutical company needed a way to measure the force required to rupture gel capsules. The force is an indication of the thickness of the shell of the gel caps. A wall that is too thin will not hold its shape, while one that is too thick will not dissolve properly.

### SOLUTION

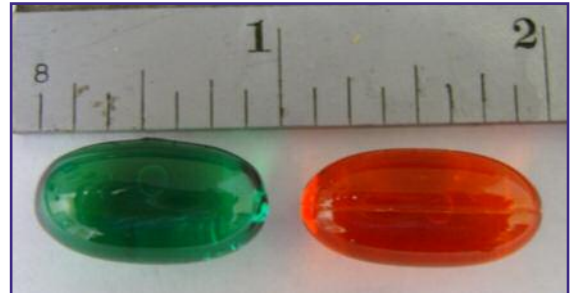
For each test, the sample was compressed 15 mm after contact, at a speed of 100mm/minute. The amount of compression was determined prior to testing as it was enough to rupture the gel cap without the compression platen coming into contact with the base plate.

A 75mm, aluminum compression platen was used for this test but any size larger than the capsule would be suitable.

Care was taken to align the samples in the same way each time, with the seam in the capsule vertical.

### BENEFITS

- Simple and quick compression test to objectively measure the rupture force of the capsules
- Enables customer to have a repeatable way to measure the effects of changing certain steps in the production process
- Software allows for statistical analysis and provides easy to interpret data



Two similar samples prior to testing



Sample after testing

