

# Test Your Packaging

**WHO SHOULD DO TESTING?** You should... for more than 24 hours. You are responsible for testing the packaging you purchase. Although we test our containers with water, you are responsible for testing the packaging with your product. This is important as we do not know nor understand the product that the packaging is intended for. Furthermore, we do not have the facilities to test the packaging with your product.

**WHAT TYPES OF TESTING SHOULD BE DONE?** All packaging must be subjected to the conditions that you intend the finished product to endure. In particular, please subject the packaging to the following conditions when fully filled:

- 1 Test the packaging for leakage** - All packaging could potentially leak, with the exception of the presence of a physical barrier, such as an induction foil. Therefore, you should:
  - i Ensure that the packaging does not leak over time. Not all packaging supplied by Synergy is leak proof, even for water. None of the packaging supplied by Synergy is leak tested.
  - ii Subject the filled and capped product over the intended logistical conditions – via air, sea, or land.
  - iii Note that leakages of gases contributes to evaporation and is not uncommon.
  - iv Note that if the application of caps are to be done with an automated capping machine, please test this first. If the application of caps will be through a manual process, please ensure trials are carried out with hand capping.
  - v Note that some products and/or their ingredients attack the plastic components of the packaging, and this might reduce the sealing capacity if the packaging over a period of time.
- 2 Volumetric requirements.** There are a range of different requirements for head space and overfill. Different customers overfill their products to different levels – some overfill by 5ml and others overfill by 10%. Further, some closures and crimping machines reduce the overall volumetric properties of some containers. You are encouraged to check the capacity of your intended packaging to ensure that you are satisfying your requirements of the volume you require. Our volumetric labels are intended as a guide only. Once the products are made, it is impossible to change the capacity without additional costs. Filling equipment at times require a certain amount of head space depending on the viscosity of the product. This also varies greatly with the temperature of the fill. Please ensure that you test the packaging for appropriate capacity with your filler at the right temperature and using the machines that are intended for production.
- 3 Chemical reactions between the packaging and contents.** All packaging must be tested against chemical reactions. Different chemical compounds with varying concentration will have varying effects on the packaging. There is no substitute to testing the packaging against your intended use over time as some concentrations of common chemicals used attack common plastic used in our packaging. Discoloration of product, rust and distortion of packaging is not uncommon.
- 4 Dispensing closures.** Common failures of dispensing closures are well known. Oil-based ingredients do not usually work well with mist sprays. At times this might not be evident until several weeks have passed. The failure can be manifested by leaking, failure to mist with the spray and dispensing without depressing the actuator. Whilst some of these issues can be overcome with a high density gasket mist spray, some are not so easy to overcome. Liquids with particles (solids) do not mist spray well. High viscosity liquid with low surface tension, such as gels and paste, do not work well with lotion or liquid pumps.
- 5 Decorations.** Check the adhesion, registration and repeatability of the decorations required because screen printing, labels and hot foiling do not have the same process capability.
- 6 Packaging of the products.** Please note the packing orientation, whether it is individually or loosely packed. Special arrangements can be made, but these arrangements must be made ahead of time.
- 7 All new products must be approved prior to production.** All customers must approve new products and ensure that they carry out the trials required. If you choose not to carry out trials and testing procedures, you will risk all that has been outlined above.