

Packaging Validation Tests from MET Medical Pouches and Blisters

- External inspection according to **ASTM F1886-98** (2004). A relatively simple test, we normally use to supplement information gleaned in other seal tests.
- Bubble emission according to **ASTM D 3078**. A vacuum test for non permeable packs.
- Dye penetration according to **ASTM F 1929**. Dye is injected into sealed packs, ingress into seals is then inspected for visually. Suitable for packs with at least one transparent web or a porous web.
- Hospital environment aerosol test. This test has been validated internally and shown to find channels as small as 0.3mm. It simulates 1 year of storage unprotected on a hospital trolley.
- Leak into a vacuum **ASTM F-2095**, pressure decay test very precise, requires tooling.
- Calibrated hole test, in this test impermeable packs are fitted with laser drilled holes of 12.5, 25, or 50 micron diameter. Leak from the packs is then measured using a vacuum decay method and compared to non-perforated packs. MET uses this test for validation and IQ / PQ studies on customer's own machines.

Seal Strength

- Burst test according to **ASTM 1140-00**. A good strength test which examines the entire seal area, locating the weakest point. Suitable for porous and non porous packs.
- Seal peel test to **ASTM F88**. tensile test carried out at NAMSA's laboratories.

Shelf Life

- Accelerated ageing according to **ASTM F 1980**. Storage of packs at elevated temperature is used to simulate shelf life ageing, in a shorter time period. Suitable for porous and non porous packs.

Web Materials

- **ASTM F 1608** Microbial Ranking of Porous Packaging Materials. This test to evaluate the effectiveness of web materials as a barrier is carried out at NAMSA's laboratories.
- The dust drum microbial test for whole packages was developed by HIMA. It is available through our partnership with NAMSA.
- A uniform shipping simulation test according to **ASTM D 4169**.