STERIKING®

STERIKING® Tyvek® Pouches and Rolls*

TEST REPORT Double Pouching Efficiency

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Approved by:

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 $\hbox{*Steriking is a registered trademark of Wipak. Tyvek is a registered trademark of Du Pont}\\$



1 INTRODUCTION

This test was designed to evaluate the sterilization efficiency when STERIKING® Tyvek® packages were double packed and sterilized in a VH_2O_2 cycle.

The purpose of the study was to demonstrate that the VH2O2 process is capable to eliminate a population of 10⁶ CFU *Bacillus stearothermophilus* spores in case of double packed STERIKING® Tyvek® packages are subjected to the VH2O2 sterilization process. Acceptance was based on negative BIs.

2 EQUIPMENT AND MATERIALS

- 2.1 Sterilizer unit: STERRAD[®] 100S, serial number 016309, at Central Hospital of Päijät-Häme, Keskussairaalankatu 7, FIN-15850 Lahti
- 2.2 Biological indicators: STERRAD[®] CycleSure[®] 24 (REF 14324), LOT 32291Z (EXP 2011-03)
- 2.3 Incubator
- 2.4 STERIKING® Tyvek® packages: REF LTS7520 LOT 0802, REF LTS1025 LOT 0706, REF LTS1530 –LOT 0603, REF LTSS1 LOT 0802, REF LTSS4 LOT 0902, REF LTSS5 LOT 0606

3 TEST PERFORMANCE

- 3.1 BI vials were placed internally to a LTS or LTSS pouch which was closed either by sealing it with a heat sealer (LTS references) or with tape included (LTSS references). Then these (inner) packages were placed into other (outer) ones which were closed accordingly.
- 3.2 Three identical sterilization cycles were performed in Sterrad 100S.
- 3.3 Packages were opened and BIs were collected and transferred to the incubator with the reference BI (unprocessed). All the vials were incubated and monitored for 48 hours at 58°C.

4 TEST RESULTS

- **4.1** After sterilization all LTS and LTSS test packages were intact and their process indicators had changed color appropriately from yellow to blue. The chemical indicators on top of the CYCLESURE® 24 BI vials had changed from red to golden yellow.
- **4.2** After incubation time processed BIs showed negative growth and the unprocessed reference BI showed positive growth.

5 CONCLUSION

The data generated in this study demonstrates that the STERIKING® Tyvek® packages can be used as a double pack concept when such circumstances are required. They enable the sterilizing agent to penetrate into the inner package and eliminate the spores of *Bacillus stearothermophilus*. STERIKING® Tyvek® products in a double pack concept have shown their compatibility for use when exposed to VH₂O₂ sterilization.