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WD-chex™ Washer-Disinfector Monitors

Technical Data Sheet

Introduction:

Propper WD-chex™ washer-disinfector monitors are indicator strips designed to test the cleaning efficacy of medical and laboratory washers and thermal washer-disinfectors. WD-chex indicators monitor integrated result of the cleaning process parameters, which includes mechanical action of water, efficacy of detergent, cycle time and temperature.

Product description:

Each WD-chex indicator strip consists of two black protein mixture stains adhered on a fibrous polyolefin substrate. These indicator stains do not contain any natural blood and have no risk of contamination of cleaning chamber and its content. In the same time, the stain mixture contains organic compounds normally present on medical instruments and devices after use with patients.

The protein stains wash off completely from the substrate when exposed to a sufficient cleaning cycle. The purpose of two indicator spots is to represent open surfaces and difficult to clean parts of instruments. Both indicators stains have identical composition, and designed to be used with WD-chex monitor holder which has one open and one covered side. The holder acts as a process challenge device, which covers indicator stain on one side in of monitor strip while leaving the other stain spot fully exposed. The covered stain simulates conditions that are challenging for medical washers and washer-disinfectors (such as instrument joints, locks, or devices with complicated shapes). The open stain area simulates full exposure to cleaning cycle parameters inside washer basket where the WD-chex monitor is placed.

FIGURE 1. PROPPER WD-CHEX INDICATORS. LEFT IMAGE SHOWS LOOSE INDICATOR STRIP. RIGHT IMAGE SHOWS STRIP IN DESIGNATED HOLDER.

Performance:

WD-chex™ is designed to have resistance characteristics conforming to the requirements of ISO 15883-5. Sufficient cleaning is a function of adequate combination of all critical parameters - mechanical action of water, efficacy of detergent, cycle time and temperature. If any of the parameters is insufficient to maintain cleaning

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efficacy, WD-chex will show fail. The need of all parameters to obtain "full clean" result with WD-chex was demonstrated in experiments when strips were exposed to individual parameters. For example, the indicators stains will become lighter, but will remain on strips when WD-chex™ exposed to circulating water with no presence of detergent or still water with detergent for the typical wash cycle time.

Interpretation of results:

After exposure to a cleaning cycle, the indicator strip should be examined for the presence of any remaining black indicator stains (Fig.2). The presence of residual black stains on the strip after exposure means that the efficacy of the cleaning process in the area where the indicator was placed is insufficient. Indicator strip should be examined after the strip has dried.

Any remains of the black stain in the open area of the monitor indicates major failure of the cleaning efficacy to fully clean instrument surfaces. Any remains of the indicator stain on the covered part of the monitor indicates inability of the washer to fully clean under challenging conditions.

Failure of a cleaning cycle to remove indicator stains from the monitor strip may be due to one or multiple causes.

Entire wash cycle failure. It may happen due to inadequate wash cycle parameters, deterioration or wrong dose of detergent, suboptimal for a specific enzymatic detergent temperature, short cycle time and others.

Fail results in particular baskets could be also observed when the washer cycle is good. It may happen if the chamber is overloaded, too many instruments are placed in a particular basket, if a basket is not suitable for specific instruments, and others.

All failures should be investigated and remedied. In case of repeated failures, the washer cycle parameters for specific loads need to be re-validated with Propper Soil Test[1]. After completion of successful cycles, verification of cleanliness should be verified with Propper Protein Test[2].

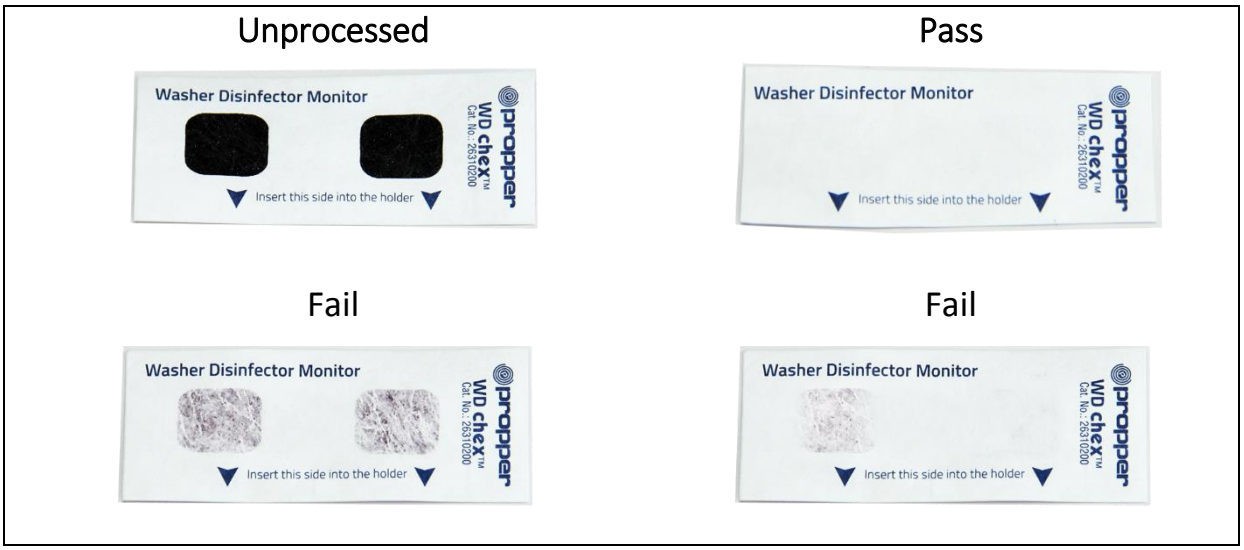

FIGURE 2. UNPROCESSED, FAIL, AND PASS RESULTS OF WD-CHEX.

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Instructions for use and handling:

The WD-chex indicator should be inserted into the holder from the top down, into the covered part first (Fig. 3). Make sure that the strip is fully inserted and held firmly in place by the metal clamp on the side of the open area. The metal clamp should not be bent. The holder can be placed horizontally or hung vertically in a basket, allowing for cleaning to be tested in different positions in various areas of the washer. For washers and washer-disinfectors that employ multi-level racks, it is recommended that one strip be used per rack to ensure that all rack levels receive proper cleaning.

When removing an indicator strip from the holder, the strip should be pulled out straight from the top. Strips should not be pulled from the side to prevent indicator stain from rubbing off against the metal holder during removal.

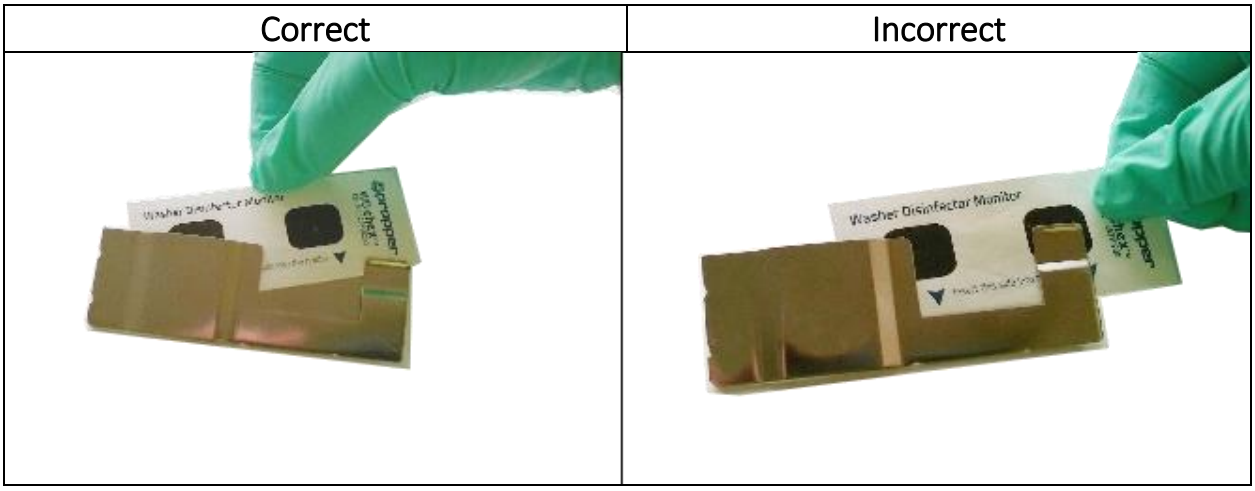

FIGURE 3. DEMONSTRATION OF CORRECT AND INCORRECT INSERTION AND REMOVAL OF WD-CHEX INDICATOR FROM HOLDER.

Shelf-life and storage conditions:

- Shelf Life: 18 months, expected to be extended to 2 years pending completion of real-time shelf-life study.
- Storage conditions: 30-70%RH, t° 15-30C°. Avoid exposure to direct light, excessive heat and excessive humidity.

WD-chex indicators are stable after processing, and can be stored for recordkeeping.

Product Order Information:

- Cat No.: 26310200 – Pouch of 250 *WD chex™ Monitor Strips*
- Cat No.: 26965300 – Box of 6 holders for *WD chex™ Monitor Strips*
- Cat No.: 26915300 – Box of 1 holder for *WD chex™ Monitor Strips*

1. Propper Washer-disinfector Test Soil kit, 6 tests. Reorder #26100400.
2. Propper Protein detection test, 30 vials, reorder #26923300.