

TECHNICAL BULLETIN

Medical Grade Paper

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Biological test packs are normally made with a self-contained biological placed inside a resistant test pack. These test packs are constructed with low porosity paper placed inside a tightly secured box or paper wrap. The paper surrounding the biological provides resistance to the steam insult which occurs during a steam sterilization cycle. If the cycle is successful, the biologicals will be killed. If not, the biologicals will survive as determined after incubation.

Paper used in the biological test packs provide the majority of steam resistance, but ordinary paper can also cause premature wounding or killing of the biological spores. This is due to contaminants found in unrefined or ordinary paper stock. Unrefined paper may include trace amounts of formaldehyde, arsenic, bleaches and other highly toxic chemicals. Under everyday use, these chemicals do not present a hazard as they are only trace amounts and do not leach out of the paper.

However, under the high heat and pressure of a steam sterilizer, and in a tightly secured test pack, these chemicals can vaporize and leach out of the paper. They are significant enough to kill the biological spores contained within the pack. Obviously, this negates the whole purpose of a biological test pack to monitor the effectiveness of a steam sterilization cycle.

To overcome this potential problem, biological test packs should be constructed with "Medical Grade" paper. This paper, while more expensive, significantly reduces the possibility of paper contaminants from prematurely killing the biological spores. Here are some details as to how Medical Grade paper is produced.....

* To start the process, only paper pulp which is 100% virgin cellulosic is used. Absolutely no re-cycled paper can be part of this process.

* The pulp then flows through three refining steps which removes pulp contaminants before proceeding to the paper formation stage. These include a refiner step, a centrifuge step and finally, a flow through a series of screens.

* Prior to forming the paper on the paper making machines, a comprehensive cleanup of the machines is done to reduce the possibility of contaminants from the paper formation process.

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* The paper#mill that supplies SteriTec Products and specializes in medical grade paper is ISO 9001 and ISO 14001 approved.

The logo for SteriTec, featuring the word "SteriTec" in a bold, italicized, sans-serif font. The "S" is significantly larger than the other letters. A horizontal line is positioned below the text, ending in a small diagonal tick mark on the right side.

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