Nitrogen Use with Medical Device Packaging

Preservation with Nitrogen Gas

Summary

The packaging of medical devices and supplies such as test kits for doctor's offices, blood supplies, instruments and containers presents a challenge for sterilization, preservation, and extended shelf life. Sterile packaging is a crucial factor for medical technology and devices but the packaging must also be optimal for transportation, storage and end use.

The challenge here is to maintain sterility, freshness, and shelf life so as to preserve the integrity of the product, to get the most accurate test results, and to extend the shelf life of medical devices and supplies.

Nitrogen gas is a clean, dry, inert gas used effectively for sterilization, preservation, and atmosphere blanketing. Nitrogen provides an ideal solution to the challenges presented in medical device packaging.

Optimal Preservation with Nitrogen Gas

Nitrogen may be applied during medical device packaging to eliminate the presence of oxygen. If oxygen comes into contact with perishable medical supplies, it may affect the nature of the product as well as any test results associated with it. Nitrogen displaces the oxygen and maintains a dry, sterile atmosphere within the packaging. Also, by eliminating oxygen, Nitrogen gas will prevent humidity levels which can affect the shelf life of stored medical devices.

Improve the purity of nitrogen packaging processes with static charge removal.

- Medical devices such as catheters, tubing, syringes
- Doctor's office test kits
- Blood supplies
- Instruments
- Containers
- Pharmaceutical packaging

Nitrogen ionizer neutralizes surface charges to eliminate foreign material contamination on medical and pharmaceutical products. Improves yields, saves rework costs and delivers higher reliability products to the medical user.

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