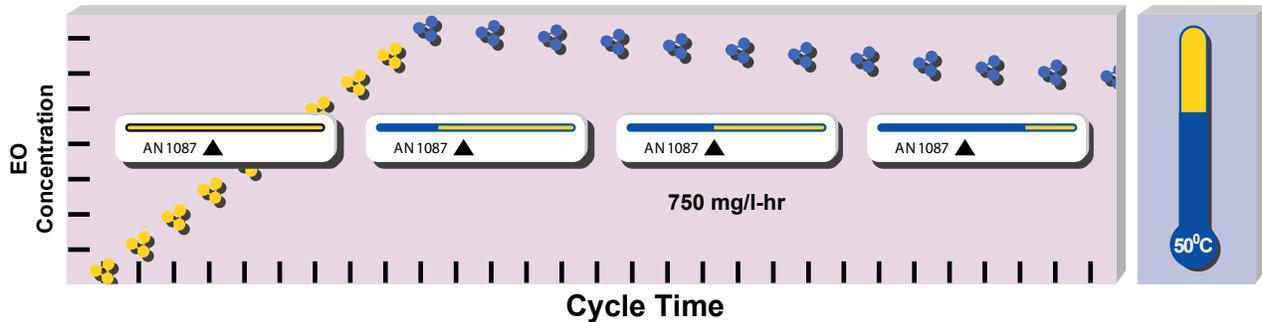


*Integrates the effects of time, temperature, and concentration when used with the EOGas® Sterilization Systems*



To assure that sterilization with the EOGas process can be carried out reliably, three important parameters must be controlled: the concentration of sterilant gas, the length of exposure to the gas, and the temperature. The AN1087 Dosimeter is designed to integrate the effects of time, temperature, and the concentration of ethylene oxide on the sterilization load. The yellow material in the indicator column will turn blue in proportion to the dose of sterilizing gas, thus providing immediate graphic evidence that the conditions necessary for sterilization of properly prepared materials have or have not been met.

Authorities have reported that at 50°C (122 F), 500 mg/liter-hours of exposure to ethylene oxide will sterilize instruments heavily contaminated with spores, providing that these spores have not been dehydrated before exposure to the gas. It has also been convincingly demonstrated that even dehydrated spores may be readily sterilized, if they are first immersed in water or rehydrated at 100% relative humidity. A margin of safety has been designed into the use of the Dosimeter by setting its triangular pointer (▲) to indicate at least 750 mg/liter-hours of exposure.

Every EOGas sterilization cycle must be monitored by placing an AN1087 Dosimeter in the sterilization bag with the items to be sterilized. To determine whether the core of the load has been exposed to a dose of EOGas adequate for sterilization, the Dosimeter should be placed in the least accessible part of the load. To be considered sterile, the color change from yellow to blue must extend at least to the triangular mark, thus indicating that a dose of 750 mg/liter-hours has been received.

Intelligent preparation of the items to be sterilized is the key to reliable sterilization using the EOGas system. Disassemble all instruments to the extent possible. Remove all caps, plugs, stoppers, plungers, valves, stylets, or other obstructions to provide easy access for the gas to interior cavities. Coatings of dried protein, such as dried blood,

serum, or pus, protect microorganisms from the sterilizing gas. Scrub instruments surgically clean in detergent and water. If the nature of an instrument excludes immersion in water, place it in 100% relative humidity for at least four hours prior to wrapping and sterilization. A simple and effective humidification chamber can be made by placing a sponge wrung out in hot water inside an EOGas sterilization bag. Place the item in the bag and hold the bag closed with a twist tie. At the end of four hours, remove the item and wrap it for processing as outlined in the instructions packed with the EOGas cartridges. The Anpro® Humidichip® is an effective alternative to the wet sponge.

Items to be sterilized in EOGas should only be wrapped in cloth, paper, or plastic/paper pouches designed specifically for use in ethylene oxide sterilizers. Some plastic films, such as nylon and polyester, are virtually impervious to ethylene oxide. Do not use any plastic film to wrap items for sterilization unless you have tested the wrapping material for compatibility with the EOGas system. Package a Dosimeter in the plastic material to be tested and run it through a normal EOGas cycle. If the Dosimeter indicates that it has been exposed to at least 750 mg/liter-hours of sterilant gas, the wrapping material in question can be used with EOGas.

In addition to using the AN1087 Dosimeter, it is important that a routine be established for challenging your sterilizer with a biological indicator (once a week, or on a schedule consistent with the guidelines set forth by the regulatory or licensing agency governing your organization). The AN1080 Steritest® is a reliable and convenient bacterial challenge designed specifically for use with EOGas.

