

Chemical Indicators for Steam Sterilization

6 ISO Types for Typical Life Science Applications

TYPES	WHAT THEY INDICATE		APPLICATION EXAMPLE	STERIS LIFE SCIENCES PRODUCTS
TYPE 1: Process	One critical variable in the sterilization process	The unit has been directly exposed to the sterilization process	Autoclave tape or chemical indicator strips Located inside or attached to the outside of packs Provide visual confirmation of exposure to sterilization process	VERIFY™ Valueline Class 1 Steam Chemical Indicator (PCC009) Steam Indicator Tape (260010)
TYPE 2: Specific-Use	Defined in relevant sterilization standards for specific test procedures		Bowie-Dick test packs Test air removal in a prevacuum steam sterilization cycle	Steraffirm™ Bowie-Dick Test Pack (EQC003) VERIFY™ Bowie-Dick Test Packs (EQC009, EQC010) Daily Air Removal Test–DART® (NB113, NB215) VERIFY™ Bowie-Dick Test Card (S3095)
TYPE 3: Single-Variable	One critical variable in the sterilization process	Exposure to a sterilization process at a stated value (SV) of the variable	Chemical pellet Melts at a specified temperature Demonstrates the steam sterilization process has achieved a specified temperature	Not currently available
Type 4: Multi-Variable	Two or more critical variables in the sterilization process	Stated values (SVs) meet or exceed performance requirements in the ISO 11138 series for biological indicators	Moving front indicators Respond to all critical process parameters	VERIFY™ Steam Integrating Indicator (PCC065B, PCC065, PCC064)
Type 5: Integrating (Integrators)	All critical variables in the sterilization process	Stated values (SVs) meet or exceed performance requirements in the ISO 11138 series for biological indicators	Moving front indicators Respond to all critical process parameters	VERIFY™ Steam Integrating Indicator (PCC065B, PCC065, PCC064)
Type 6: Emulating (Cycle Verification)	All critical variables for specified sterilization cycles	Stated values (SVs) are generated from the critical variables of the specified sterilization process	Cycle-specific indicators Typically placed in the pack, pouch or container Respond to all critical process parameters for a specified sterilization cycle	Steraffirm™ Steam Class 6 Emulating Indicators -121 °C / 250 °F for 15 minutes (PCC012)

Critical Variables in Steam Sterilization



TIME



TEMPERATURE



STEAM