

	<b>Technical Information</b>	<b>730-102-EN</b>		<b>V03</b>
	<b>Reasons for the melting of Compact-PCD®s</b>	Created	17.03.2011	UK
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All GKE Steri-Record® Compact-PCD®s (C-PCDs) are designed of an outside plastic case with different internal stainless steel tubes, capsules and caps. The outside case is stable in sterilization processes up to about 180°C and will melt in the region of 200°C.

In table top sterilizers sometimes the outside plastic case of the GKE C-PCD is melting. The following 3 reasons depending on the different construction of table-top sterilizers are discovered:

1. Some table-top sterilizers produce steam inside the chamber by pouring water at the bottom before the door is closed. If the chamber is not filled with water, the sterilizer starts to heat up and because no pressure is built up, the sterilizer is heating to an extent that the C-PCD will melt, if it is placed on the bottom of the sterilizer chamber.
2. Some sterilizers have their steel steam boiler straight underneath the sterilizer chamber with the electrical heating jacket around. This jacket is often touching the bottom wall of the sterilizer chamber, so it can happen that the bottom wall of the sterilizer chamber heats up very high melting the case of the C-PCD.
3. Modern sterilizers have a jacket, which is heated by steam or by an electric jacket. The chamber walls during sterilization should not have a higher temperature than the steam, e.g. 134°C, otherwise the sterilizer is producing superheated steam. To achieve better drying some manufacturers heat up the chamber wall to a very high temperature at the end of the sterilization processes. In their directions for use it is quite often written that after validation of the sterilization process data loggers should be removed before the drying phase to prevent damaging them due to too high temperatures.

Ensure when using a GKE Steri-Record® C-PCD in a table-top sterilizer that there is no potential melting risk involved as mentioned above. As a precaution place the C-PCD at the bottom of the sterilizer in a tray and do not allow direct contact of the C-PCDs to sterilizer walls.

If a sterilizer is manufactured according to the standard EN 13060, the walls of the sterilizer should never heat above the sterilization temperature normally 134°C, so no melting damage of the PCD should occur.