

	Technical Information	730-144-EN		V03
	Colour change performance of GKE type 1 chemical indicators	Created	09.03.2017	UK
		Changed	04.08.2021	KP
		Checked	04.08.2021	UK
		Released	04.08.2021	UK
File no.: 2.1				

The colour change of a chemical indicator on a sterilization pack indicates that the sterile product has passed the sterilization process, however, without providing any information about the quality of the sterilization process. That means that the final colour change of the indicator is only a logistic information for the user and cannot be considered to evaluate the sterilization process. The specifications of type 1 chemical indicators are described for all sterilisation processes in the standard EN ISO 11140-1.

1. Steam sterilization process

The GKE chemical indicators are suitable for all steam sterilization processes. Since these processes can have different temperatures (121 - 134°C) and times of 3 - 45 min, the GKE indicator changes colour from blue via different shades of brown to dark brown/black depending on the sterilization process.

If the sterilization process works with superheated steam, the indicator does not change to brown/black but to blue-green. This colour change is also sufficient for the logistic information that the sterile product has passed the sterilization process and does not provide any information about a successful or not successful sterilization process inside of the sterile package, but only that superheated steam was used. This is an additional advantage of the GKE type 1 indicators.

2. Ethylene oxide (EO) sterilization process

The GKE chemical indicators are suitable for all EO processes.

Colour change: Blue → Green
new: Yellow → Blue

3. LTSF sterilization process

The GKE chemical indicators are suitable for all LTSF processes.

Colour change: Purple → Green

4. VHPO sterilization process

The GKE chemical indicators are suitable for all VHPO processes.

Colour change: Blue → Green
new: Purple → Green