

# **gke Clean-Record®** Cleaning Process Indicators for ultrasonic cleaning baths

## **Application**

The **gke Clean-Record®** cleaning process test system is used for validation and routine monitoring of cleaning processes. The indicators can be used in ultrasonic baths for the manual cleaning for all kinds of instruments. The test sheets are placed vertically or horizontally inside the volume to check the intensity of the cleaning process.

Surgical instruments are contaminated with various soils. Depending on the pre-treatment of instruments the adhesion may be different. Body fluids consist 75-85% of water soluble proteins and can be washed off with cold water. Instruments should be cleaned with cold water directly after use before the soils can adhere and before disinfectants are used which are fixing soils.

The use of cleaning detergents is very important for the efficacy of cleaning processes if non water-soluble soils are contaminants. Only water-soluble soils can be washed off with water. Fats and other non- water soluble soils, e.g. lipids or hard baked proteins can only be washed off, if a cleaning detergent is used. Some cleaning detergents are alkaline and hydrolize the non water soluble substances by using a high pH-value making them water soluble. Other cleaning agents have a neutral pH-value containing enzymes. Both mechanisms can be combined in one cleaning detergent. Cleaning detergents are optimized depending on the contaminations on the instruments. Therefore, the optimal cleaning agent has to be chosen accordingly. Instruments made of aluminium-magnesium corrode at high pH-values.

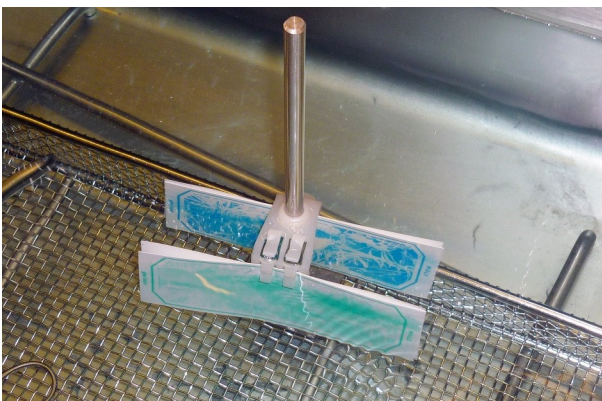


Fig. 1: Use of CPI in an ultrasonic baths

The water quality (hardness, salt content) highly influences the effectiveness of cleaning detergents.

**gke** offers 4 different test sheets to check ultrasonic baths. The indicators should be immersed in the fluid vertically or horizontally to check the different intensity in mechanical force inside the volume of the liquid.

It is recommended to use these indicators at least once a day in every process used to ensure that there are no changes of the process parameters. It is also recommended to monitor each batch where loads are difficult to clean.



Fig. 2: Test sheets for ultrasonic baths

## **Product Description**

There are 4 test sheets of a size of 125 x 56 mm with different wash-off characteristics available to monitor the cleaning efficiency inside the liquid volume in ultrasonic baths.

**gke** offers three different clip holders to fix the indicator inside the ultrasonic bath at different locations in the volume. This test method offers the possibility to check the cleaning efficacy over time in the same liquid.

## Performance Characteristics

The technical specification ISO/TS 15883-5 describes 19 test soils with completely different cleaning properties without making any recommendation, as to which test soil to use. Currently none of the test soils are offered as a reference, because there is no test method defined to compare the soil properties.

The **gke** research centre has developed a test equipment (spray rig test) to be able to compare real soils, test soils of the standard and the different **gke Clean-Record**<sup>®</sup> cleaning process monitoring indicators. Comparative tests with a normative standard are not possible since currently no standard is available. Still **gke** has already carried out several tests under different cleaning conditions (flow rate, detergents, dosage, temperature etc.) in order to compare the cleaning characteristics of the above-mentioned materials and **gke** indicators. For the first time it is possible to describe the properties of cleaning process monitoring indicators. Test results are available on request.

The indicator colour is non-toxic and is dissolved with most of the cleaning agents and flushed away with the washing fluid.

## Benefits

- Use of synthetic test soils on plastic carrier instead of using natural test soils with blood prevent transfer of pathogenic germs and offers long-term stability and long expiry dates.
- Cost-effective due to the use of plastic carriers and printed test soils.
- Easy documentation because of self-adhesive indicators.
- All accessory parts of the holder are made of durable materials and are maintenance free. They can be used for an unlimited number of cycles. The cleaning efficacy can be tested in all three dimensions of the volume using special holders.
- The cleaning efficacy of the bath can be controlled over time.
- Easy to use.

## Order Information

### Test sheets for ultrasonic cleaning baths

Art.-No.	Product Code	Quantity	Test Version		Application
810-111 810-112	W-U-CPI-Y	40 120	Yellow	Different wash-off characteristics	Test sheets for validation and routine monitoring to test the cleaning efficiency in ultrasonic cleaning baths with 4 different sensitivities
810-211 810-212	W-U-CPI-G	40 120	Green		
810-311 810-312	W-U-CPI-B	40 120	Blue		
810-411 810-412	W-U-CPI-R	40 120	Red		

### Holder for ultrasonic test sheets

Art.-No.	Product Code	Content	Application
800-115	W-U-HO-7	with 7 cm stainless steel bar	to fix the indicator horizontally or vertically inside the basin volume.
800-116	W-U-HO-20	with 20 cm stainless steel bar	
800-117	W-U-HO-40	with 40 cm stainless steel bar	

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