

TM SMART GEL

VERIFICATION GEL WITH INTEGRATED COLOR INDICATOR TO SCREEN CLEANED SURFACES IN THE FOOD AND BEVERAGE INDUSTRY

DESCRIPTION

TM SMART GEL visualizes the level of hygiene. It is a 2-component quick-test for surfaces, based on the patented and industry recognized **THONHAUSER  PERSULPHATE TECHNOLOGIES**.

Within seconds **TM SMART GEL** reacts with ALL TYPES of contamination of organics (food residues such as proteins, fats, sugars, flavorings, phenolic compounds, oxalates, and microorganisms); whereas most quick-tests are limited to the specific detection of glucose, lactose, or ATP proteins of microorganisms.

FEATURES:

- easy to use
- shows results within 60 seconds
- visually detectable color reaction without additional instruments
- clear statement: violet means clean, green means contaminated
- non-toxic, no environmentally harmful emissions

YOUR ADVANTAGES:

- economical for large-scale application
- supports preliminary work for HACCP and IFS audits
- validates cleaning process and makes it easy to be corrected - without loss of time
- no training or special equipment for using **TM SMART GEL** necessary
- ALL food groups detectable (conventional protein rapid tests depend on high protein concentrations e.g. in meat; glucose rapid tests only respond to glucose and lactose)

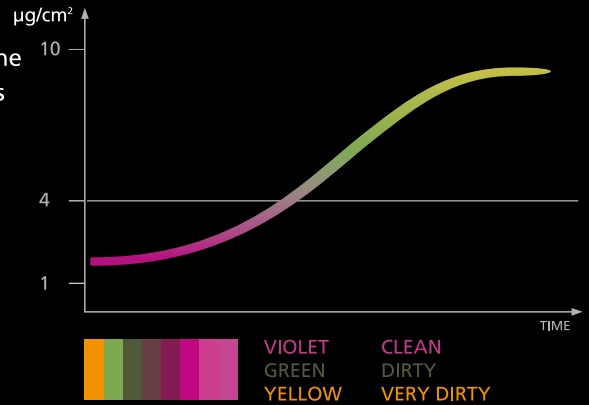


SENSITIVITY AND CHARACTERISTICS

TM GEL SMART is based on a manganometric measuring principle in an alkaline environment. By contact with any organic residues it oxidizes and decomposes the organics to their mineral ingredients and at the same time it reduces the indicator of manganese 7 to manganese 2 (redox principle).

A clearly visible green color is produced by:

- Bovine serum albumin appr. 5–7 µg/cm²
- Glucose appr. 1–2 µg/cm²



The correlation between the color value of the THONHAUSER PERSULPHATE TECHNOLOGIES and microbiological load was confirmed by SGS Fresenius, Competence Center Food, Drinks & Mineral Water Department, Taunusstein / Germany.

Sensitivity analysis in the development laboratory:

FOOD *)	PROTEIN TESTS*	GLUCOSE TESTS*	ATP BIOLUMINES-	TM SMART GEL **
Dairy products	1/20	1/100	1/100 – 1/1000	1/1000 – 1/10000
Lemonade	not detectable	1/1000	1/1000	1/10000
Sausage	1/10	1/10	1/100	1/100 – 1/1000
Ketchup	1/10	1/10000	1/100	1/10000

*) The comparative data was collected from vendors and sales literature and will be revealed on demand.
) The dilution was applied to 1cm², dried and then sprayed with **TM SMART GEL.

PACKAGE SIZES, MIXING RATIO

TM SMART GEL COMPONENT A	TM SMART GEL COMPONENT B	TM SMART GEL APPLICATION GEL	APPLICATION	AREA
0,5 kg	25 ml	0,52 kg	500ml-spray bottle	1.5 m ²
4 kg	200 ml	4,20 kg	Pump-sprayer / reusable	15 m ²

CONSUMPTION, COMPARED TO CONVENTIONAL VERIFICATION METHODS

PRODUCT	10 x 10 x 10 cm white tiles	10 x 10 x 10 cm stainless steel	1 m ² white tiles	1 m ² stainless steel
TM SMART GEL *)	25 grams EUR 0,35	35 grams EUR 0,50	250 grams EUR 3,50	350 grams EUR 5,-
ATP	10 Swabs EUR 25,-			

*) Pricing example based on recommended retail price for the 4-kg-unit. Fluctuation range in consumption in the amount of 20-30% is possible.

SPECIFICATION OF THE MIXED GEL (Component A and B)

APPEARANCE	violet/magenta
APPLICATION TEMPERATURE	10-30 °C (DO NOT USE ON HOT SURFACES!)
DENSITY	1,01 - 1,04 g/cm ³
pH	12,5 - 13
SHELF LIFE	at least 1 week
STORAGE TEMPERATURE	+ 1 to + 25 °C (33,5 to 77°F), (preferably cool) keep from freezing
MATERIAL COMPATIBILITY	Ceramic tile, plastic and stainless steel as well as sealing made of EPDM, FKM, HNBR and VNQ ATTENTION - non resistant on copper, aluminum, galvanized surfaces and rubber seals
COMPOUNDS	Gel + 1% NaOH, PST-component

**For more information, please refer to the Safety Data Sheet.
 Always read the label and product information before use!**

