CHT
SMART CHEMISTRY
WITH CHARACTER.

MG-603189
HOHENSTEIN
Medically Tested
hohenstein.com/trust

Tested for:
- Cell toxicity
- Sensitization
- Skin irritation

SMART PROTECTION

Gentle washing for hygiene and efficient cleanliness

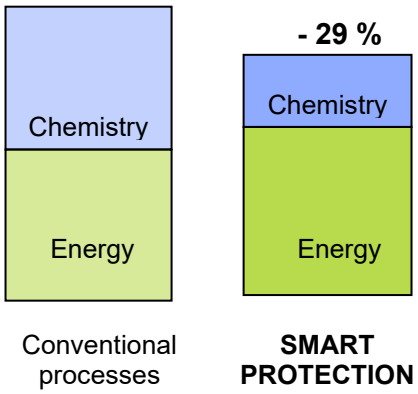
SMART PROTECTION

Optimised processes are of increasing importance in times of raising energy cost and a responsible handling with natural resources.

SMART PROTECTION fulfils these requirements. At 70 °C, laundry is reliably cleaned within a short time, is disinfected and at the same time treated gently.

The concept of this method follows the idea of the Sinner's circle which defines the washing process as interplay between temperature, time, mechanics and chemistry. SMART PROTECTION washes at higher temperatures than conventional disinfecting processes and reduces the washing time while minimizing the chemistry consumption. The higher energy is compensated by time savings and less need of chemicals.

Costs of the entire process for energy and chemistry in ct/kg dry laundry:



SMART PROTECTION is part of CHT's SMARTEC system. This system is based on the obvious idea of applying only so much chemistry that is really needed and in this way complying with the various wash requirements. The SMARTEC dosing technique supplements this system for best possible washing procedures.

The advantages of this process

QUICK

Disinfection is done within ten minutes in the rinsing step.

CLEAN

The washing results are impressive: SMART PROTECTION achieves a very high whiteness degree with optimal dirt and stain removal.

GENTLE

Special additives in the wash auxiliaries ensure that fibre damages also at higher temperatures are prevented and in this way textiles are given a longer durability.

SAFE

The disinfection effect of the laundry is ensured twice. On the one hand by the reliable CHT / BEZEMA washing auxiliary and on the other hand by the higher washing temperature.

The SMART PROTECTION process is listed according to § 18 IfSG (Infection Protection Act) for the areas A and B at the Robert-Koch-Institute.

KIND ON RESOURCES

The concept of the SMART PROTECTION process allows for eco-friendly washing preserving resources and at the same time keeping the total process costs low.

Ecological concept

The SMART PROTECTION process is environmentally friendly due to its lower need of washing auxiliaries. It also has a low COD value and can do without the application of disinfection/bleaching agents containing peracetic acid. SMART PROTECTION also ensures a constantly low rewashing rate which is additionally eco-friendly.

Economical concept

Optimisation of the required time and the applied chemicals lead to a total cost savings of up to 29 %. By decreasing the cycles, it is possible to increase the capacities. The low application of chemicals compensates for the higher energy consumption caused by the higher washing temperature.

Gentle washing

The following results of the technical wash survey carried out at the Hohenstein laboratories prove that the fibre damage in the SMART PROTECTION process is comparable with that of low temperature washing. The articles were treated with the mentioned washing recipe and without addition of optical brighteners.

Applied washing auxiliaries

Basic product	Application amount
BEIPUR ANP	0.6 ml/l
BEIBLEACH WP 35	0.5 ml/l

Liquor ratio 1:4
10 Min. at 70 °C

BEIPUR ANP

This is an alkali donor particularly developed for the SMART PROTECTION system. It stands out for its good dispersing and complex binding capacity, it is silicate-free and phosphate-free and classified as water hazard class 1. It ensures a controlled washing process at higher temperatures and owing to its special additives for an optimal protection of the fibres. Owing to the special product formulations, high whiteness degrees as well as hygienic soil removal in combination with other products from the SMARTEC system are guaranteed.

BEIBLEACH WP 35

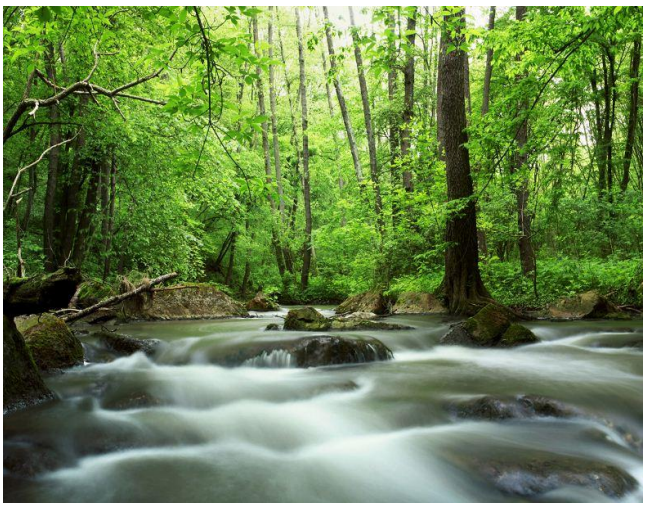
Highly effective, liquid bleaching and oxidation agent based on oxygen. In alkaline baths > 70 °C, it has outstanding bleaching effects of stains and all kinds of dirt. The powerful and at the same time fibre-protecting bleaching effects prevent unpleasant odours and the whiteness degree is maintained. It is suitable for all fabrics of cellulose and cellulose/polyester mixtures.

Result cotton standard cotton fabric after 50 washing cycles			
Test criterion		Result	Limit value acc. to RAL-GZ 992/1 after 50 washing cycles
Loss in tensile strength in %		7.9	≤ 30.0
Damage factor (chemical fibre damage)		0.1	≤ 1.0
Inorganic fabric incrustation (ash residue) in %		0.1	≤ 1.0
White quality	Degree of whiteness (WG value)	217	≥ 170
	Colour variation number (FAZ)	N 0.12	R -1.5 to G 2.49
	Basic white value (Y value)	94	≥ 85

Table: Extract from the test report no. 11.1.8-0084-III Hohenstein Laboratories (2011)

SMARTEC GREEN SYSTEM

The wash process in the SMART PROTECTION process can be expanded with the products from the SMARTEC GREEN SYSTEM. The products belonging to this system stand out for their low water hazard class and good biodegradability.



Advantages for the environment

The SMARTEC GREEN SYSTEM stands out for the following added values:

- Target-oriented portfolio for professional laundry care and finishing
- Ecologically optimised individual products which are adjusted to one another
- Minimising environmentally harmful substances
- Good biodegradability
- Special products free from phosphonate and silicate
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Products for the SMARTEC GREEN SYSTEMS

BEICLEAN NFG

BEICLEAN NFG is a universally applicable, highly concentrated, low foaming washing and cleaning agent. The product is classified as easily biodegradable according to the OECD criteria. In comparison with many competition products BEICLEAN NFG is classified as non-toxic. In addition, the efficient and universally applicable detergent is free from phosphor, APEO and AOX. It meets the Detergent Act in all aspects.

BEIPLEX GREEN

Highly effective, phosphonate-free, and readily biodegradable dispersant and washing power enhancer. The use of BEIPLEX GREEN protects fibers and increases the service life of textiles in general. In terms of sustainability, fewer textiles need to be disposed of and recycled.

BEISOFT BTN

BEISOFT BTN is a universal softener for the textile care. After washing a soft and sleeky fabric handle is achieved on clothing articles. Thus, a clearly increased wear comfort is imparted to the wearer. Moreover, with a regular application BEISOFT BTN prevents the laundry from wearing off prematurely. The active substance of BEISOFT BTN is classified as easily biodegradable according to the OECD criteria and as non-irritant.

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