

BIONI SYSTEM INFORMATION RG1

BASIC CONDITIONS & CLEANING INSTRUCTIONS

GENERAL INFORMATION

› MATERIAL

BIONI SYSTEM FOOD is a coating system developed specially for the food and beverage industry that consists of a highly alkaline mineral, 2-component base coat and a patented Silver-System Technology based, pure acrylic top coat. The system is intended as a long-lasting mould renovation and prevention concept for industrial and commercial areas that are particularly prone to humidity.

Phase 1	Phase 2
Base coat	Top coat
G50.1 component	W23.1 component
Form: Powdery (powder component) Liquid (liquid component) Pasty (after mixing)	Form: Pasty
Colour: Brownish (mixture)	Degree of gloss: Matte
pH: approx. 11.5 - 12.0 (mix)	Colour: White
VOC content: 0 g/L (ISO 11890-2)	pH: approx. 9
	VOC content: <1 g/L (ISO 11890-2)

› CHARACTERISTICS

BIONI SYSTEM FOOD is applied in several work steps. The recommended total minimum coat thickness should be 550 µm (base coat 400 µm, top coat 150 µm). Between the base coat and top coat application, there must be minimum 12-hour drying period. Thus, regardless of the size, a painting project involving a given surface always takes at least 60 hours (painting and drying) (see Leaflet RG2).

› PREREQUISITES

Subsurface quality, temperature (air and surface) as well as humidity (air and surface) have a significant influence on drying and thus on the subsequent effectiveness of BIONI SYSTEM FOOD. Immediately before, during, and right after the application, the necessary basic climate conditions for drying and full hardening of the coating components should be observed and ensured in the construction site. In addition, chemical and mechanical influences affecting the system should be avoided:

Parameter	Requirement
Room temperature (MIN)	+5°C
Surface temperature (MIN)	+5°C
Relative humidity (MAX)	65%
Subsurface humidity/ Surface humidity	no surface condensation no visible moisture no pressing moisture

If the above-mentioned parameters cannot be observed, action to create the basic room and surface climate conditions must be taken if necessary, such as providing and installing heaters (e.g. hot air fans), (construction) condensation dryers, industrial fans or turning off the cooling system in adjoining cold storage rooms.

› UTILISATION

Depending on temperature and humidity, the top coat surface dries after about 12 hours, but is not ready for use yet. A direct (chemical or mechanical) stress of the coating surface must be avoided until hardening is complete. The system is fully resistant and cleanable after approx. 3-4 weeks.

A (disinfection) cleaning of the rooms (not of the coated surface!), in which BIONI SYSTEM FOOD was applied can be carried out 48 hours after the top coat has been applied at the earliest - as long as the coating is dry.

› PROPERTIES

Once drying is complete and full usage is possible, BIONI SYSTEM FOOD is highly resistant against mould and bacterial infestation as well as against humidity and the usual chemical and mechanical stresses.

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CLEANING

› INITIAL SITUATION

Often, wall and ceiling coatings in rooms of the food and beverage industry are subject to very severe stress. On the one hand, they must protect the surface from damaging media like water and chemical attack. On the other hand, they are constantly exposed to a great deal of moisture owing to production and/or cleaning processes that can lead to a higher risk of bacterial and mould growth. At the same time, wall and ceiling coatings have to meet high aesthetic and durability requirements and remain free of damages for many years (e.g. no spalling/peeling).

Regular cleaning of the system contributes to value conservation and thus ensures a long protective function of the surface. Regular walking inspections of the cleaning staff can furthermore recognize damaged areas in the coating early and repair them right away as preventive measure.

› SPECIAL FEATURES

Building surfaces in food and beverage manufacturing plants are sometimes subject to the effects of high humidity that manifest themselves not infrequently as drops or even fully wet wall and ceiling surfaces. If, for example, moisture carries or rinses dirt residues from adjoining horizontal and uncoated areas (ceiling areas, cable ducts, pipeline systems, etc.) across the coating surface, dirt streaks on the coating surface can be the result. Such residues must be removed immediately because otherwise they will form a separating layer on the coating surface, thereby impairing or abolishing the protective function of the BIONI SYSTEM.

In areas and sectors in which the continuous accumulation of organic residues on the coating surface must be expected due to production activities, for example, reg-

ular cleaning to preserve the protective functions of BIONI SYSTEM are even absolutely necessary. This is especially the case in rooms where baked goods are produced (flour dust) and production areas linked to the release of (fatty) vapours, e.g. frying processes during the manufacturing of potato chips and other foods.

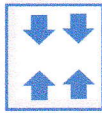
› INTERVALS

The intensity and frequency of the cleaning intervals depends a lot on the conditions of the building and indoor climate as well as on the company-specific production and handling processes. Whether cleaning must take place once a week, month or year can only be stipulated flexibly depending on the local conditions of the individual room and its type of use.

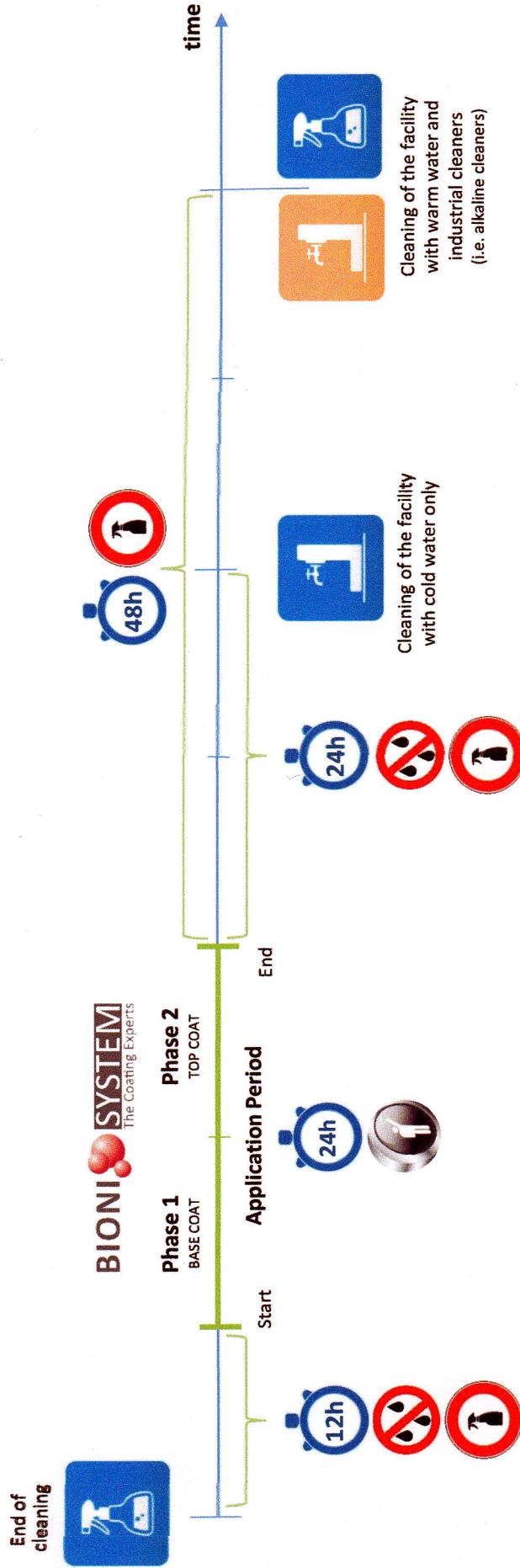
Sectors that produce more organic residues (e.g. manufacturers of baked goods) require short cleaning intervals to remove the secondary separating layers on the coating surface on a regular basis to preserve the functions of the BIONI SYSTEM.

› RECOMMENDATIONS

When selecting cleaning and care products for the mechanical (manual or mechanical) and cleaning method used, care must be taken to use only those products that do not damage the system. The cleaning recommendations of BIONI SYSTEM should be followed.



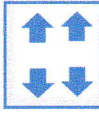
TECHNICAL INFORMATION SHEET RG2 PROCESSING TIME AND ROOM CLEANING



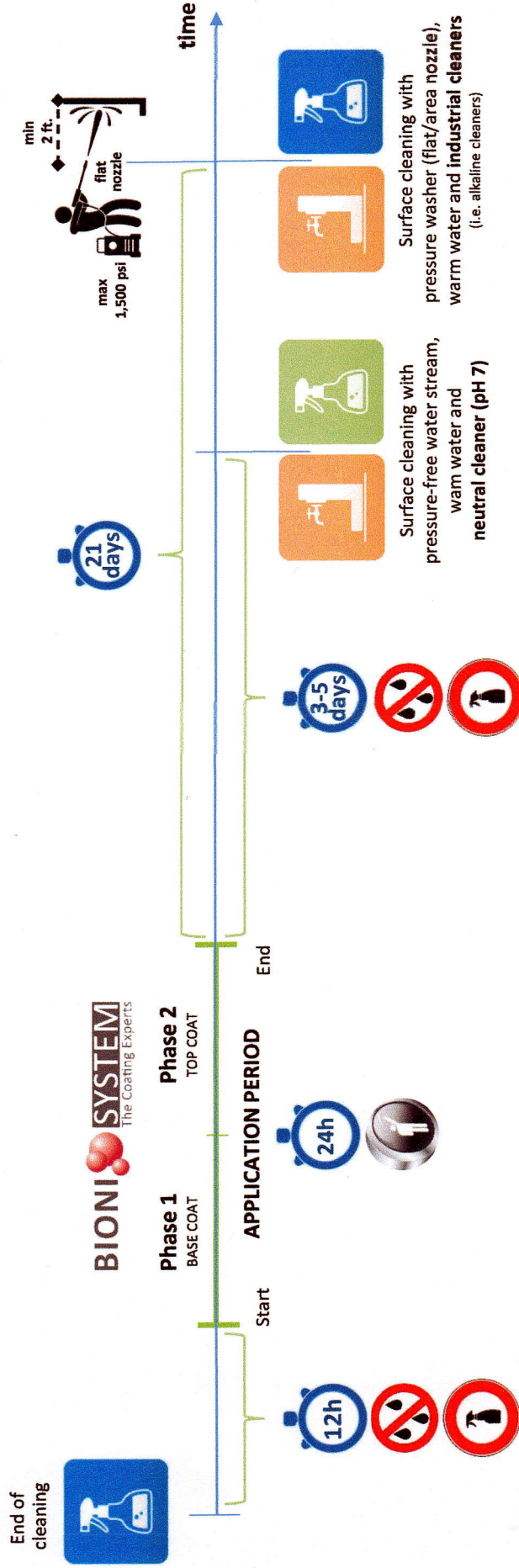
Instructions:

- At least 12 hours before starting with the coating work, the last cleaning must have been completed in the room to be worked on.
- For the coating work (phase 1 and phase 2), a minimum work time frame of 24 hours is necessary, since the primer and final coating cannot be applied on the same day.
- During coating and drying times, the room may neither be cleaned nor used for production purposes.
- It is possible to clean the room (machines, floors, no coated surfaces!) with cold water if drying conditions are observed 24 hours after completing the work.
- It is possible to clean the room (machines, floors, no coated surfaces!) with warm water and industrial cleaners if drying conditions are observed 24 hours after completing the work.
- When a project is executed with BIONI SYSTEM FOOD, a minimum time frame of 60 hours (2½ days) is necessary during which the room to be worked on can neither be used nor cleaned.

This Technical Information Sheet has been compiled based on the latest state-of-the-art standards, intensive development work and many years of practical experience. Due to the diversity of substrates, possible applications and other influencing factors, the information provided cannot be binding and no liability can be deduced from it. Therefore, the time frames given represent only minimum requirements for professional project execution. Room and surface temperatures as well as room and surface humidity can prolong or shorten the indicated drying times. If there is uncertainty about the condition of the surface or drying times, own testing may be done if necessary. The publication of a new edition voids the validity of this printed material. (Last updated: 03/2015).



TECHNICAL INFORMATION SHEET B3 PROCESSING TIME AND MAINTENANCE/SURFACE CLEANING



Instructions:

- At least **12 hours before starting** with the coating work, the last cleaning must have been completed in the room to be worked on.
- For the coating work (phase 1 and phase 2), a minimum work time frame of **24 hours** is necessary, since the primer and final coating cannot be applied on the same day.
- During coating and drying times, the room may neither be cleaned nor used for production purposes.
- It is possible to clean the coating surface with **unpressurized water, warm water and neutral cleaners (pH 7)** if drying conditions are observed **3-5 days after completion of the work**.
- It is possible to clean the coating surface with **high-pressure cleaners** (surface nozzle, max. 100 bar, >0.6 m), **warm water and neutral cleaners (pH 7)** if drying conditions are observed **21 days after completion of the work**.
- For periodic cleaning and/or the basic cleaning of the coating, consult the latest edition of technical bulletin RG1 ("Bioni System_Basic Conditions & Cleaning Instructions_RG1_2015").

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