

Microbe BLOK

ProREZ Coatings, LLC

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PRODUCT REFERENCE SHEET

FLOORS ARE AN INVITING PLACE FOR MICROORGANISMS TO BREED

Resinous flooring systems like epoxy and urethane are polymers — they are applied in liquid form and when cured are organic in nature. It is this organic material found in the finished film of polymerized resins that become the microorganism's source of food. When pathogens feed they breed. As they consume organic matter, amino acids are broken down and turned into energy called ATP (Adenosine triphosphate). The energy created gives them the ability to thrive & multiply by the thousands. Floors in particular are prone to surface contamination mainly due to poor maintenance and care — leaving the floor surface to be a feeding ground for all sorts of pathogens. As these pathogens continue to feed on the organic matter, they can produce unpleasant odors, unsanitary conditions, surface "pitting", and ultimately floor coating failure.



Upon request, **ProREZ** can provide you with floor coating products factory treated with **Microbe*BLOK**, an antimicrobial agent specifically designed for protection against a broad range of bacteria, fungus, mold, and other harmful microbes. Combined with our superior chemistry, the **Microbe*BLOK** additive will help deliver a hygienic flooring finish, which not only looks and smells cleaner, it will last longer than untreated materials.

A Microbe*BLOK treated flooring system is ideal for commercial kitchens, food & beverage processing, and other harsh environments. The Microbe*BLOK agent offers reliable protection against a wide variety of pathogens causing premature coating failure due to their infestation. Once the resinous flooring system is cured, Microbe*BLOK will perform to help preserve the surface film by preventing harmful microorganisms from breaking down the organic matter inherent to the coating material and contributing to its degradation.

Microbe*BLOK is added into the resinous liquid during the manufacturing process, and when the coating system is properly installed and cured, it offers the following benefits:

- 1) A fungi-static agent to protect the coating from fungal growth on the surface.
- 2) A mold/mildew preservative which inhibits the growth of mold/mildew on the surface of the coating.
- 3) An antimicrobial to retard the growth and action of bacteria that leads to odors and coating failure.
- 4) Overall broad-spectrum fungicide and algaecide for film protection in areas prone to mold/mildew and fungal growth which can also cause coating deterioration.
- 5) Odorless & clear, with no leaching or off-gassing compounds.
- 6) A floor that lasts, looks good, smells & feels cleaner.

For more information on **ProREZ** materials please refer to our **Technical Center** located on the website at **www.prorezcoatings.com**.

THE SCIENCE BEHIND THE ANTIMICROBIAL FLOORING CONCEPT

Microbe*BLOK is designed for use in our coating products as a film preservative. This preservative releases chemical that is harmful only to microbial bodies through inhibiting enzymatic reaction of ATP by attaching to amino acid. This reaction halts metabolism causing microbe atrophy and starvation, which ultimately prevents further growth and proliferation while allowing the organic coatings to remain safe, hygienic, and free of harmful microorganisms.

INADEQUATE FLOOR CARE & MAINTENANCE CONTRIBUTE TO THE SPREAD OF HARMFUL MICROBES

More often than not, floors in commercial & institutional environments are exposed to contaminated water delivered from mop buckets — either by infrequent changes in dirty rinse water, or by not changing out mop buckets from one type of room to another, etc. Inadequate or improper

cleaning regimens leave floor surfaces vulnerable for growth and proliferation of germs and other harmful microorganisms from one space to another. Lack of education — orientation, training & follow-up — is typically the root cause in poor floor maintenance & care, along with improper sanitization procedures, as well as inadequate cleaning & sanitization agents.

THE FLOOR, ITSELF, CONTRIBUTES TO THE PROBLEM

Over time, the flooring finish may begin to show signs of noticeable wear such as scratches, gouges, cracks, lifting, small voids or pinholes, etc. Even the smallest breaches in a floor surface finish can become a repository for the growth & spread of germs & bacteria, especially in hard-to-clean areas.

PREVENTING BACTERIAL GROWTH

Bacteria are simple unicellular organisms that can cause spoilage, odor and infection.

Typical Bacteria

Gram Positive Type:

Bacillus cereus

Bacillus mycoides

Bacillus subtilis

Brevibacterium ammoniagenes

Brevibacterium epidermidis

Corynebacterium

pseudodiptheriticum

Enterococcus faecalis

Listeria monocytogenes

Listeria welshimeri

Nocardia asteroides

Staphylococcus aureus (& MRSA)

Staphylococcus epidermidis Streptococcus pyogenes

Streptoverticillium reticulum

Gram Negative Type:

Acinetobacter calcoaceticus

Enterobacter aerogenes

Enterobacter cloacae

Escherichia coli (& 0157:H7)

Klebsiella pneumoniae

Morganella morganii

Proteus mirabilis

Proteus vulgaris

Pseudomonas aeruginosa

Salmonella choleraesuis

Shigella sonnei

PREVENTING MOLD AND FUNGI GROWTH

Single multicellular organisms that form on rotting organic material.

Typical Mold & Fungus Type:

Alternaria alternata

Aspergillus flavus

Aspergullus fumigaus

Aspergillus niger

Aspergillus repens

Aureobasidium pullulans

Candida albicans

Chaetomium globosum

Cladosporidium herbarium

Curvularia genticulata

Epidermophyton Floccosum

Fusarium oxysporum

PRACTICE GOOD FLOOR CARE

The use of biocide preservatives is not always the best solution for protecting the surface of your resinous flooring system. The best practice is to have a well-designed FLOOR CARE PROGRAM with proper cleaning and sanitization agents. With the right floor materials for the right environment, you still need to keep the surfaces clean. A well-developed and monitored cleaning/maintenance program can help prevent the spread of germs, reduce contamination, minimize the potential for slip & fall incidents, as well as enhance the appearance and service life of your floor. In the end, practicing good floor care, with optional Microbe+BLOK can provide additional reassurance that your floor will continue to be hygienic, safe, and long lasting.

Microbe+BLOK:







Untreated

