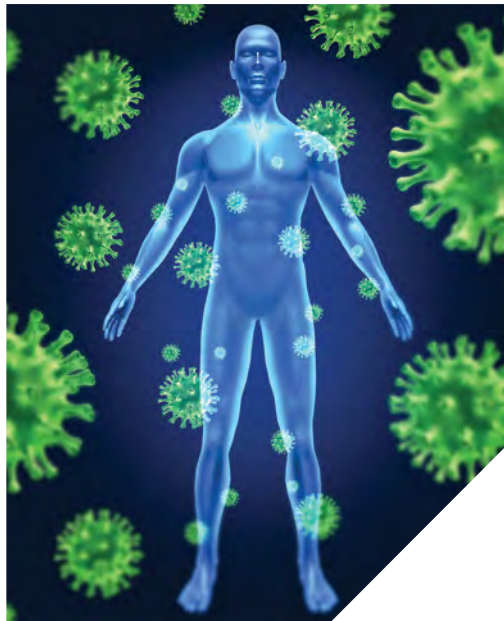




Plastics Color
CORPORATION

MicroBlok™
Antimicrobial formulations for polymers



What are microbes?

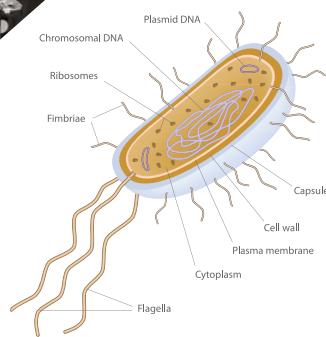
Microbes or microorganisms are everywhere! They are living cells that are too small to be seen with the naked eye and must be viewed through a microscope. The naked eye is only able to detect the presence of microbes once they have multiplied to the hundreds of thousands. Under the right conditions, microbes can double in number every 15-20 minutes. Types of microorganisms include: bacteria, algae, fungi and mold.

PCC introduces MicroBlok, custom-formulated antimicrobials for polymers.

MicroBlok is used in appliances, medical devices and other consumer contact applications.

MicroBlok impedes the growth of bacteria on surfaces of products, greatly reducing stains, odors and product deterioration. MicroBlok has undergone rigorous laboratory testing under ISO 22196:2011. The ISO test measures the growth of bacteria within a 24-hour period on the tested plastic substrates.

PCC's MicroBlok antimicrobial technologies are engineered into resins during our compounding process, eliminating the need for secondary steps. It's a safe and sure way to deliver microbe-fighting products to your customers without any additional material modifications on your part.



How does MicroBlok work?

The silver ions within MicroBlok are dispersed uniformly throughout the polymer matrix. These silver ions create a large “internal” specific surface within the polymer and this creates an extremely high efficiency antimicrobial action. These silver ions are not depleted during the inhibition process, thus the antimicrobial effect of MicroBlok is not diminished over time.

Availability

- PCC’s MicroBlok product line is custom-blended in a wide variety of resins including TPU, PC, ABS, PP and PE.
- MicroBlok is appropriate for virtually any molding or extrusion application and can be custom-formulated for any special manufacturing process.

Quantitative Antimicrobial Assessment: ISO 22196:2011

Amount of growth after 24 hours

Sample Description	Initial Microorganism Count	Microorganisms Recovered
Untreated ABS	225,000	310,000
MicroBlok Treated ABS	225,000	< 50
Untreated Polystyrene	1,650,000	3,950,000
MicroBlok Treated Polystyrene	1,650,000	< 50
Untreated TPU	225,000	2,900,000
MicroBlok Treated TPU	225,000	< 50

Testing Protocol ISO 22196:2007. A bacterial inoculum is placed in microdroplet form on the surface of polymer chip samples. Each sample is placed in its own container with a lid. A sterile film is placed on top over the inoculum to encourage good contact. After 24 hours of incubation at 37°C, 50 mL of Lethen broth was added to the container and shook. Sample test data based on custom-formulated materials for specific resins listed.

For more information or to speak with a representative, please visit www.plasticscolor.com or call 800-922-9936.



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AMERICAN ASSOCIATION OF
LABORATORY ACCREDITATION
Testing Laboratory Certificate Number 2974.01/02



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