

NYBOX

ANTIMICROBIAL POLYMER MASTERBATCHES

NYBOX is a unique organic antimicrobial plastic additive that, unlike competitive products, is completely non-toxic and harmless to the human body. It displays superior strength, effectiveness, and heat tolerance, and is 100% compatible with new generation biodegradable polymers. These features distinguish our product in the plastic industry for premium applications and market standing.

NYBO BIOTECH AB, a subsidiary of NYBO INDUSTRIES AB in Sweden, is a leading company in Europe offering antifungal, antibacterial, and antiviral Masterbatches made from additives that do not contain any nano metals such as silver, zinc, copper, or other metals displaying antibacterial properties. Recent scientific developments are proving that nano metals create hazards and risks to the environment and the human body. NYBOX uses non-hazardous chemicals and is nontoxic and environmentally friendly.

Antifungal, antibacterial, and antiviral additives are used in numerous plastic applications and offer an array of benefits. Finished products made with antimicrobial and antifungal additives inherently repel germs without the addition of liquid cleaners and sprays. Increasing concerns related to disease transmission have created a significant demand for antimicrobial chemicals used in industrial, medical, institutional, and consumer products. Efforts to reduce the transmission of infectious diseases have spurred the use of more effective products in hospitals, restaurants, and food and beverage processing. Antimicrobial technology helps prevent stains, discoloration, odors, and preserves the mechanical properties of industrial and commercial products.

NYBOX Antimicrobial masterbatch has a suite of varying gradations for integration into nearly every kind of plastic and silicon manufacturing, from biodegradable plastic bags to hardened PVC. The masterbatch can be added easily into any production workflow without changing the machinery or adding any health hazards to the plastic manufacturing facility.

Superior Antibacterial & Antifungal Properties: NYBOX offers numerous hygienic applications due to its ability to inhibit the growth of microorganisms, viruses, mold, and infection. Testing has shown that products made with NYBOX antimicrobials are successful in thwarting notable Bacteria such as: Staph (Staphylococcus aureus), E. coli (Escherichia coli), Salmonella (Salmonella typhimurium), Bacillus, Micrococcus luteus, Klebsiella pneumoniae, Pseudomonas aeruginosa, and many more.

100% Non-toxic and Emits Zero Carcinogens: The toxic chemicals BPA, DEHA, and other dangerous phthalates and endocrine disruptors, which are associated with a variety of ills, including cancer and reproductive problems, have been detected in all petroleum-based plastics but not in NYBOX. Market-leading competitors give off toxic chemicals, including arsenic, while the NYBOX Antimicrobial masterbatch has an organic origin and is 100% non-toxic.

Mechanical Properties: NYBOX displays excellent tensile strength, adhesion, and other mechanical properties.

High resistance to heat: NYBOX is highly resistant to heat and can be processed at higher temperatures than its competitors, allowing the additive to be turned into a wider range of finished products.

Ease of Processing: NYBOX can be used in every general molding method used for thermoplastic resins, including but not limited to extrusion, injection, calendar, and blow methods. In layman's terms, any machines built to process regular plastic can process NYBOX with no necessary upgrades or augmentation. This easy integration into existing production workflows allows for low barriers to entry into the plastic manufacturing world.

Biodegradable: NYBOX is fully compatible with new generation biodegradable plastic resins (PLA).

Potency: NYBOX imparts its antimicrobial characteristics to the finished product when added into the entire ingredient load at only 1-3% of the entire amount.

Competitive Pricing: NYBOX is the cheapest antimicrobial in its class. The product is competitively priced to undercut the competition, offering nano-metal-based products.

Market Status

The global demand for plastic products is about 500 billion kg in 2025, and the production of specialty plastic additives is more than 5 billion kg, with a steady increase in the proportion of additives to total plastic quantity. Gains in antimicrobial additives will be led by a heightened demand for products that reduce the risk of food-borne illnesses, are effective against antibiotic-resistant organisms, and are compatible with other component ingredients in cleaning and sanitizing formulations.

Increasing concerns related to disease transmission will drive demand for antimicrobial chemicals used in industrial, medical, institutional, and consumer products. Efforts to reduce the transmission of infectious diseases such as AIDS and hepatitis will spur the use of more effective products in the health care market, while food and beverage safety concerns are expected to support healthy growth in demand for anti-microbial products used both in eating and drinking establishments and in food processing facilities.

Product Development

Currently, in cooperation with several scientific facilities in Europe, we are creating NYBOX antimicrobial products for new applications in various industries such as construction, textiles, paint, and many more.

NYBO BIOTECH's Research and Development team explores new finished products that can be fortified with the NYBOX technology. Meanwhile, NYBO's marketing and business development department works on strategic relationships with plastic manufacturers who require superior antimicrobial characteristics.

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