

	<i>Novin Baspar Sazeh Co.</i>	2023
	NovinCide-ZB201	AntiBacterial Masterbatch

Datasheet for Antibacterial Masterbatch NovinCide-ZB201

Introduction

This group of masterbatches with trade name NovinCide® are supplied in three different categories: Anti-bacterial, anti-fungal and anti-algae. They contain novel biocide additives based on metal oxide nanoparticles, and produced using a specific technique that allows full dispersion with no agglomeration and change in particle size. Thus, they are fully incorporated in the masterbatch, providing excellent anti-microbial properties. These masterbatches are completely natural in color and do not add any color effect to the product, thus preserving the natural color while maintaining mechanical properties of the product. Productions and parts with incorporated anti-microbial masterbatches, apply different methods to eliminate bacteria, giving the product the ability to perform well in different conditions such as dry environments, environments with high humidity and dark environments.

NovinCide-ZB201 is an antibacterial masterbatch based on some metal oxides with MDPE as the carrier polymer. NovinCide-ZB201 has been developed for applications where antibacterial effects are desired. Specially it is being used in the manufacture of PE tanks by rotational molding process.

Specifications

Antimicrobial Properties

Property	Test Micro-organisms	Quantity/Quality	Unit/Standard
Antibacterial performance	Test Bacterias: E.coli (ATCC : 25922) S.aureus (ATCC : 25923)	99.99	%
Antifungal Performance	Test Fungies: Aspergillus Niger (PTCC:5010) Penicillium Citrinum (PTCC:5304) Trichoderma Parceramosum (PTCC:51) Paecylomyces Variotii(PTCC:5126) Aspergillus Nidulans (PTCC:5014)	No growth or Trace of growth	ASTM G21-09

Physical Properties

Property	Value
Appearance	Natural color cylindrical pellet
MFI (g/10min; 2.16 kg, 190°C)	3.5-4
Density (g/cm ³)	0.94

Guideline to Use

NovinCide-ZB201 masterbatch and polymer should be pre-blended. The amount of masterbatch added is dependent upon the thickness of the inner layer of final product. Typical addition levels are 1–3 wt%.

Applications

Recommended for rotational molding process also is suitable for injection and blow molding parts.

Packaging

The standard packing is 25 kg laminated PP woven sack bags.

Storage

Keep the product in cool & dry place with good ventilation. Away from the direct sunlight, high temperature, rain pour and not under heavy loads.



The information in this data sheet represents typical values obtained by us and should not be regarded as a specification.

We condition that the product will be inspected and qualified by the customer for his process to meet the specific requirements set by application, processing equipment and end product.

Contacts:

Detailed information on special applications and technical information is available at the Technical Department.

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