

COATING WORLD[®]

SPECIAL REPORT ON NONSTICK COATINGS AND HOUSEWARES FOR RETAILERS

Whitford Introduces First Nonstick Coatings With Antimicrobial Protection

Unique New Coatings, Called "Silver Series", Capitalize On Worldwide Trend Toward Cleanliness, Purity, Protection

Whitford Worldwide has just launched a new series of coatings that contain an antimicrobial additive to protect the coating. Whitford's new Silver Series reflects a growing awareness of and interest in products such as coatings with built-in antimicrobial protection in addition to their normal benefits.

The Silver Series offers retailers the opportunity to develop products that capitalize on this trend.

Here are key questions and answers regarding the new Silver Series.

1. What are the Silver Series coatings?

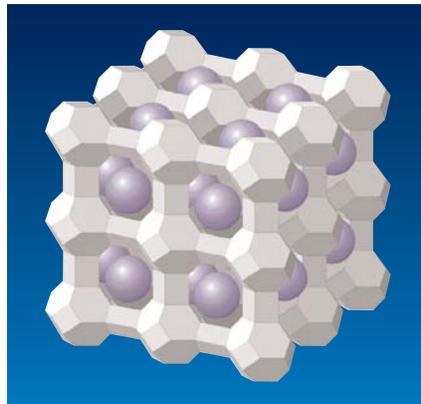
They are actually existing Whitford food-contact coatings (single- and multiple-coat nonsticks) engineered for use on such products as cookware, bakeware, and small appliances, with an antimicrobial additive included in the formula. Retailers using a Whitford food-contact coating or planning a new nonstick project can upgrade easily by specifying coatings with the additive.

2. What is the additive?

The additive is called "AgION[™] Antimicrobial,"* an advanced antimicrobial delivery system based on silver, a substance long used for the control of microbes, fungi, mold and other nox-

ious substances. ("Ag" is the symbol for silver in the Table of Elements.)

Silver was used by the ancient Romans to hold water and wine, since it inhibited bacterial contamination. Silver ion has proven effective against a broad range of bacteria, yeast, fungi and mold.



The advanced AgION molecule.

3. How does it work?

- Whitford incorporates the unique additive into coatings destined for use in food-contact applications. Because the additive is inorganic, it is unaffected by processing, including high-temperature cures.
- The additive protects the finished Silver Series coatings from the growth of mold, mildew, fungi, bacteria, etc.
- Because the AgION Antimicrobial

is an integral part of the finished coatings, it cannot "wear out". Therefore, it maintains its efficacy to protect the coatings from such potentially noxious microorganisms for the life of the coatings.

4. What claims can be made?

Additives such as AgION Antimicrobial are subject to regulation by the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA). The EPA, in particular, has established strict guidelines for what can (and cannot) be said about products that contain additives such as this one and articles using these coatings.

As a general principle, no health claims can be made. Note: This applies to the United States. Cookware, bakeware and appliances sold with Silver Series coatings in non-USA markets are subject to local regulations, which are likely to be different from those of the United States.

Whitford is developing marketing materials for the new Silver Series, and several claims are under study.

Whitford believes that claims such as the following are acceptable:

- "Antimicrobial protection of the coating".

- “Antimicrobial protection is effective for the life of the coating”.

It is necessary to include qualifications, such as “Always clean this product thoroughly after each use” and “This product does not protect users against food-borne illnesses”.

These qualifications must be in the same type font and size as claims that are made for the additive.

5. What other claims can be made?

Other claims include:

- Inhibits the growth of bacterial odors.
- Prevents microorganisms from degrading the coating.

6. What does the consumer think?

The makers of AgION Antimicrobial have surveyed potential users of products with the additive, and the results are encouraging. The surveys report, for example:

- 82% of the females and 73% of

the males see AgION Antimicrobial as offering a benefit.

- 65% of women and 58% of men strongly agree/agree that it is worth paying extra for AgION antimicrobial.

7. What about the FDA?

The Food and Drug Administration has stated in writing that AgION Antimicrobial may be used “...as an antimicrobial additive in all types of food-contact polymers...intended to contact all types of food”.

8. What will it cost?

Preliminary estimates show a modest incremental cost for cookware, bakeware and appliances with Whitford’s Silver Series antimicrobial coatings.

Costs will vary depending upon the kind of coating used (whether a one-coat or a multiple-coat product).

9. Are the coatings ready?

Whitford has been working on these new coatings for a year, and they are now ready for production. These products are available in one-, two-

and three-coat versions, depending upon your needs.

10. Where else is the additive being used?

The same AgION Antimicrobial is being used in cutting boards, ice-making equipment, kitchen wipes, humidifiers, refrigerator shelving, medical instrument covers, etc. As with the Silver Series, the antimicrobial ingredient protects the products themselves.

11. Where do I get more information?

For more details, please contact your Whitford representative or Fran Attilio at Whitford Corp., Box 2347, West Chester, PA 19380-0110. Phone: (610) 296-3200. Fax: (610) 647-4849. Email: fattilio@whitfordww.com. Website: www.whitfordww.com.



*AgION Antimicrobial is a product of AgION Technologies L.L.C.

Frequently Asked Questions

Question: “Why do a few of the nonstick coatings that I’ve seen appear to have a rougher surface than most?”

Answer: “A few nonsticks (actually, the very best and most expensive nonsticks) are reinforced externally. The process involves applying a matrix of metal, usually stainless steel, in molten-hot form onto the surface of the pan, forming a series of ‘peaks’ and ‘valleys’ as it cools. The nonstick coatings, usually three coats, are applied onto the matrix.

“The coatings sink down into the ‘valleys’ and cover the ‘peaks’. Once cured, the coatings are locked into place by the stainless-steel matrix, significantly increasing adhesion.

“If a knife or fork is jabbed into the coating, the most damage it can do is scrape a bit off the tiny ‘peaks’, which prevent any damage occurring to the nonstick in the ‘valleys’. The result is a geometric increase in resistance to wear.

“Typical of this is Excalibur® known as ‘the toughest, longest-lasting, most durable nonstick system in the world’.

“Incidentally, this roughness in

no way affects the release (or non-stick) properties of the coating.”

Send questions with your name, address (or email) to: Fran Attilio, Whitford Corp., Box 2347, West Chester, PA 19380-0110, or email: fattilio@whitfordww.com.

Coming in future issues:

- Application processes: An overview of the methods of application of nonstick coatings and how they can affect the performance of the coating.

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