

Baby Accessory Manufacturer Offers Antimicrobial Solution

Additive Identified Meets Stringent Regulatory and Processing Requirements



When Canpol one of Europe's largest and most advanced manufacturers of baby accessories, was looking for an innovative and long-lasting additive that would provide a safe, antimicrobial solution for the spout on its LOVI brand baby cups, it turned to Nexeo Plastics for support.

LOVI, a popular premium brand offering high quality accessories for mothers and babies, prioritizes the safety of its products and needed an enhanced solution that provided antimicrobial protection and durability over the lifetime of the cup and would not be affected by contact with hot and cold liquids. Furthermore, Canpol required an additive for its application that would not affect the base material's (also provided by Nexeo Plastics) performance properties including color, smell, and taste.

Partnering with Canpol's Research & Development team, our Application Development Engineers (ADE) worked to understand the antimicrobial properties desired for the spout application and ultimately suggested that Canpol consider the PEU-UNI007 NAT Saniconcentrate™ additive from Parx Materials, a leading European provider of sanitizing solutions, which can achieve an effectiveness rate of 99.9 percent against bacteria.

Saniconcentrate™, provides permanent antimicrobial properties against bacteria, mold, and fungi growth based on the presence of its natural microelement, zinc. It eliminates bacteria build-up by preventing biofilm formation, which can lead to a bad odor, clogs in the spout hole, and a higher risk of infection.

Once Canpol determined that the Saniconcentrate™ additive was the ideal material for its application, Nexeo Plastics provided Canpol with the necessary documentation, including the technical specifications, material safety data sheet, and a food contact declaration. Next, we collaborated with Canpol throughout the material qualification,

PROJECT AT-A-GLANCE

Recorded Benefits

- Proposed a material solution that delivered a 99.9 percent efficacy against bacteria
- Identified an additive that did not affect color, smell, and taste
- Durable material that withstands constant use and cleaning

Challenge

Canpol Sp. z o.o. ("Canpol") needed an antimicrobial material solution for the spout on its baby cups that would not degrade after constant use and cleaning.

Solution

With help from key supplier Parx Materials, Nexeo Plastics was able to identify and supply an additive alternative that met both the safety and processing properties for Canpol's application.

Result

Delivered an antimicrobial additive for use in Canpol's baby cup spout application.

CASE STUDY

sampling, trials, and testing process. Both companies worked closely with a third-party laboratory to make sure the blend of Canpol's base material and Parx Materials' additive met ISO standards. The laboratory test trials confirmed an antibacterial efficacy rate of 99.9% for ISO 22196 testing of E. coli and S. aureus bacteria. Lastly, Nexeo Plastics and Canpol tackled the injection molding processing requirements needed to manufacture the baby cup's spout. By choosing the additive in master batch form, Canpol obtained the desired permanent effect of the material, which would not degrade over time after constant use and cleaning, meeting the long-term safety requirements of the blended material.

After the technical requirements of the manufacturing process were completed, Nexeo Plastics' ADE closely worked with Canpol's brand management team to support the development of Canpol's advertising and marketing plans that touted the use of the Saniconcentrate™ additive in the baby cup spout under the LOVI brand.

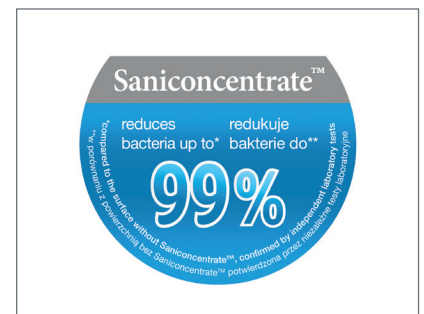
By partnering with Nexeo Plastics and its material supplier Parx Materials, Canpol provided its customers with an innovative and safe baby cup spout using an industry-leading antimicrobial additive. Canpol continues to work with Nexeo Plastics' material experts in exploring the use of this antimicrobial solution in other childcare and prenatal applications.

Discover how a partnership with Nexeo Plastics can contribute to your bottom line and help achieve manufacturing efficiencies.

"Nexeo Plastics' application development engineer quickly worked with Canpol's R & D team to identify both our material and processing needs. Together, we were able to come up with an additive that not only met our safety needs, but also worked with our existing injection molding resin. The result was a solution that was easily blended and delivered all of the properties we required."

Błażej Wojciechowski

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