



**HEIQ**  
**HYPROTECHT**

**Long-lasting Antimicrobial  
Polymer Protection**

**MOST TRUSTED POLYMER  
PROTECTION TECHNOLOGY**

*HeiQ HyProTecht is the world's  
leading durable antimicrobial  
technology to protect plastics  
and other materials against  
the growth of bacteria,  
fungi, mold and algae.*

**SWISS  
TECH  
INSIDE**

✓ **FOR COATINGS**

✓ **FOR PLASTICS**



## Outstanding qualities

- Proven antimicrobial efficacy
- Long lasting antimicrobial technologies which pass ISO, JIS and ASTM standards
- Suppresses bacterial, fungal and algal growth that can cause deterioration, staining, discoloration and odor generation to your product

## Added value

- Wide range of broad-spectrum biocides for use in the manufacture of plastics
- Built into your materials like color pigments, these antimicrobial additives provide long-lasting protection
- HeiQ products are supplied in additive and pelletized masterbatch forms, ready for use

## Regulatory Compliance

- Complies with the requirements of the European Union's Biocidal Products Regulation 528/2012, which is administered by ECHA, and the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), which is administered by the US EPA

## WHAT DOES IT DO?

HeiQ HyProTecht is a suite of versatile antimicrobial technologies that durably suppress the growth of algae, mold, mildew, fungi, and bacteria causing discoloration, staining, deterioration or odor generation on your surfaces.

## WHAT IS IT FOR?

HeiQ HyProTecht antimicrobial additives are used to protect product surfaces durably and continuously in applications including extruded fibers, foams, films, and sheet, molded plastics, coatings, polymeric footwear materials, PU- and PVC-coated textiles, medical devices, home appliances, food handling and preparation surfaces.

## HEIQ HYPROTECH TECHNOLOGY OVERVIEW

### Silver inorganics

- Silver inorganics are particularly safe, and many are approved for use in food and drinking water contact plastics.
- These inorganic antimicrobials have excellent temperature stability and can withstand the highest plastics processing temperatures.
- New HeiQ HyProTech XT innovation delivers antimicrobial efficacy at 50% lower use rates and 50% lower cost while maintaining color or enhancing transparency.

### Synthetic organics

- Synthetic organic technologies are the preferred choice for efficacy against fungi. Synthetic organics are generally lower cost than inorganics and can also be used in clear plastics, with no negative impact on transparency.
- A selection of our organic antimicrobials is registered in the USA for use in food and drinking water contact plastics.

Please consult with your HeiQ technical representative on the specifics of your application for the most suitable and regulatory compliant technology recommendation.

## PERFORMANCE THAT MEETS THE HIGHEST STANDARDS

### JIS Z 2801:2000

Antimicrobial Products – Test for antimicrobial activity and efficacy

**Our performance:** 99.9% reduction of Gram negative and Gram positive bacterial reduction after 24 hours contact time with bacteria

### ISO 22196

Plastics — Measurement of antibacterial activity on plastics surfaces

**Our performance:** 99.9% reduction of Gram negative and Gram positive bacterial reduction after 24 hours contact time with bacteria

### ASTM G21 (antifungal)

Standard practice for determining resistance of synthetic polymeric materials to fungi

Performance qualitative assessment of fungal growth on surface:

- 0 = Specimen remained free of fungal growth.
- 1 = Traces of growth on specimen (less than 10%).
- 2 = Light fungal growth on specimen (10 to 30%).
- 3 = Medium fungal growth on specimen (30 to 60%).
- 4 = Heavy fungal growth on specimen (60% to complete coverage)

**Our performance:** 0 and 1 are typical passing results

The logo features the word "HEIQ" in a white, sans-serif font with a stylized white circle above the letter "Q". Below it, the word "HYPROTECHT" is written in a larger, bold, white, sans-serif font. The logo is set against a dark red circular background that is part of a larger graphic design consisting of overlapping white and dark red shapes.

**HEIQ**  
**HYPROTECHT**

**Get inspired and learn more about our innovative technologies**  
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**Differentiate. Innovate.**

*For more details and references please ask for our HeiQ HyProtecht Technical presentation*