

ISO 22196: 2011

MEASUREMENT OF ANTIBACTERIAL ACTIVITY ON PLASTICS SURFACES AND OTHER NON-POROUS SURFACES

What is ISO 22196: 2011?

- ISO 22196: 2011 is a quantitative test of plastics and other non-porous* surfaces' ability to either inhibit the growth of or kill microorganisms.
- The efficacy of the surface is measured over 24 hours, with the test able to detect very low-level antimicrobial effects exerted over long periods of time.

How is the test performed?

- The test method specifies two representative microorganisms:
 - Staphylococcus aureus (*S. aureus*) and
 - Escherichia coli (*E. coli*)
- These test microorganisms are grown in a liquid, before being suspended and diluted in a nutritive broth that allows the microorganisms to still grow during the test.
- The broth is then placed on the control and test surfaces and left undisturbed in a humid environment for 24 hours to incubate.
- The microorganism concentration is measured at the beginning of the test and then throughout the test period until a positive result is achieved.

A positive result is when 99.9% of the initial microorganism concentration has been killed within the 24 hours.

The test has a "pass/fail" measurement for the calculated levels of antimicrobial activity to keep it objective and it has emerged as an industry standard for measuring antimicrobial activity.

**Please remember, the anti-bacterial additive is only a top-up insurance, as melamine is still one of the most effective surfaces against microbial growth, used in furniture production. And proper cleaning of surfaces is still the most effective practice against the spread of bacteria. Always use mild domestic detergents and avoid abrasive products, bleach or highly chlorinated substances as well as strong acids and bases, as this will negatively impact on the integrity of the melamine surface.*