



BS ISO 22196

Antibacterial Plastics: A Standard for Every Industry Sector

There is an increasing demand for surfaces to reduce or kill bacteria, which has reached into many industry sectors. Antibacterial products are created by incorporating an antibacterial agent that can suppress the growth of bacteria on surfaces.

Antibacterial materials such as plastics, coating materials, ceramics, natural and artificial leather, stainless steel, rubber etc. have been widely and rapidly accepted by consumers as fulfilling a relatively new and important function. At MSL we have been approached to test products for antibacterial efficacy by kitchen utensil manufacturers (chopping boards etc.), casinos, shops and food outlets who use touchscreen pads, hospitals and operating theatres, plastic bag and packaging manufacturers, pet care accessories plus many, many more...

BS ISO 22196 is an international Standard for the measurement of antibacterial activity on plastics and other non-porous surfaces. In this Standard Method, known concentrations of two organisms (*Escherichia coli* and *Staphylococcus aureus*) are placed onto the surfaces of the treated and untreated products, in triplicate, and covered with a film. Three control samples are tested immediately to obtain a base level of the bacterial recovery rate, whilst the remaining three controls plus the test samples are incubated for 24 hours. A validated neutraliser is used to stop the activity of the test products and the number of remaining viable bacteria are recovered and counted. The reduction levels compared to the untreated and initial samples are calculated and the difference between them provides the level of antibacterial effect of the treated product.