

## **EFFECT OF ANTIMICROBIALS ON FABRIC**

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### **Abstract**

Anti-microbial is a speciality product which finds a great range of applications in the textile industry. Anti-microbial treated fabric can actively deter microbial growth by the use of certain anti-microbial agents by either killing or inhibiting the growth of microbes present such as in treated cotton or denim fabrics. This experimental study depicts the various methods of application of the anti-microbial to a particular fabric. The discussion involves the reason for choosing the appropriate method of application depending on the nature of fabric. Importance of parameters such as temperature, pressure, time is also studied through experimentation. In order to assess the anti-microbial activity and its effectiveness, standard testing methods for determining activity of immobilized antimicrobial agents under dynamic contact conditions is applied. Anti-microbial activity was evaluated by both, quantitative and qualitative methods. The treated fabric was made to be attacked by the very common, *staphylococcus aureus* bacterium. At the end of the experiment calculations were made based the bacteria count taken before and after the fabric was treated by the bacteria culture and the efficiency of the anti-microbial was determined. It is also important to test the longevity of the anti-microbial treated fabric after going through a number of washes (wash fastness). The fabric was made to undergo up to a certain number of washes after which the effectiveness of the anti-microbial was again tested. Strong conclusions are made which are supported by the results achieved from the experiment