www.axon-cable.com

NOSO FREE

Patented Interconnect Solutions

ANTI-MICROBES, ANTI-VIRUS, ANTI-FUNGI

IN ONE HOUR, A POPULATION OF 100 CELLS IS MULTIPLIED BY 8 AND IN LESS THAN 5 HOURS, WILL EXCEED ONE MILLION IF THE MATERIAL IS NOT NOSO-FREE®.

AXON' CABLE has incorporated the technology of silver ion micro-flux into its interconnect solutions and launches NOSO-FREE®, an innovating range of antimicrobial medical assemblies.
They are made with dedicated jacketing, moulding and over-moulding materials which have anti microbial and anti fungi properties. Their function is to inhibit the growth of microbes, including bacteria which resist antibiotics.

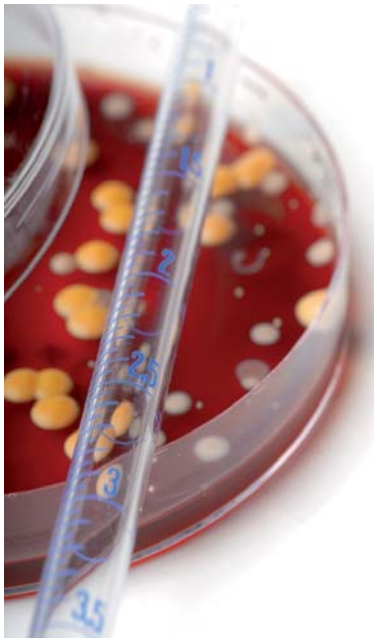
WHY IS AN ANTIMICROBIAL PROTECTION NEEDED ?

Nowadays, 5 to 12 in-patients out of 100 catch a nosocomial infection in developed countries. It can come from cross-contamination from one patient to another via surgical or medical instruments.
The more the instruments can be colonised with bacteria, the higher is the residual risk of contamination after sterilisation.
Microbes can also build-up on cables or assemblies of medical devices including echographs, shavers, and laparoscopes.
The number of bacteria, microbes and viruses on the surface of NOSO-FREE® materials continually decreases from the first hour until their total elimination after 24 hours.

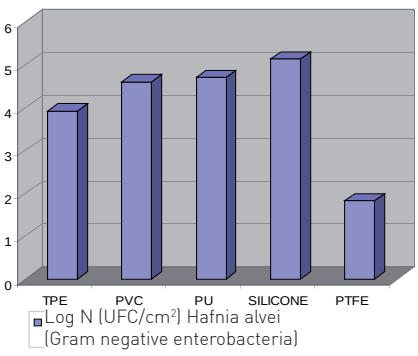
On surfaces which are not protected with NOSO-FREE®, they grow geometrically over the same period of time. For example, E-Coli grows at a rate of 3 generations per hour at 37°C. In one hour, a population of 100 cells is multiplied by 8 and in less than 5 hours, will exceed one million if the material is not NOSO-FREE®.

CAN ANY PLASTIC MATERIAL BE CONTAMINED ?

Yes, any plastic material can be a carrier of pathogenic germs.
Although some materials such as PTFE are less favourable to bacterial adhesion and should consequently be favoured in the design of medical devices, any plastic material can be contaminated.



APTITUDE OF PLASTIC MATERIALS TO BIOCONTAMINATION



Patented Interconnect Solutions

NOSO FREE

ANTI-MICROBES, ANTI-VIRUS, ANTI-FUNGI

AN INNOVATIVE PROCESS

AXON' CABLE has patented a unique and innovative process which guarantees an optimal antimicrobial activity for the NOSO-FREE® assemblies for a prolonged time.
The process consists of different operations including the design and manufacture of materials, extrusion, moulding and overmoulding.

HOW IT WORKS ?

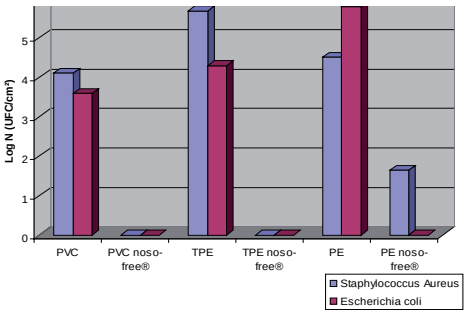
There are presently several theories in competition which try to explain the mechanism of antibacterial activity from the silver ion micro-flux. All of them state that the presence of the silver ion at the surface disturbs or stops the process of growth and multiplication of bacterial cells to such an extent that their adhesion and proliferation are considerably limited, even inhibited.

The expertise developed at AXON' is used in well integrating the antibacterial agents into the manufacture of medical and hygienic materials. Many manufacturers of autoclave equipments, hospital furniture, and laboratory devices incorporate the technology to the manufacture.
But AXON' CABLE is the first cables and assemblies manufacturer to offer a well controlled antibacterial solution.

WHEN IS THE NOSO-FREE® PROCESS EFFICIENT ?

The antimicrobial efficiency of NOSO-FREE® polymers has been evaluated to the JIS-Z-2801 specification by the French University of Lyon I and to the ISO22196 standard.
NOSO-FREE® polymers are efficient against a large variety of bacteria (including Staphylococcus aureus and Escherichia coli), virus and fungi. According to the protocol defined in the JIS-Z-2801 specification, cells of a targeted bacteria are counted up after 24 hours' incubation at 37°C. For E-coli for example, the result is obvious. The antibacterial efficiency of NOSO-FREE® polymers (PVC, TPE, PE NOSO-FREE®) is completely 100% efficient.

ANTIBACTERIAL WITH AND WITHOUT NOSO-FREE®



CAN THE PROCESS BE USED FOR ANY TYPE OF POLYMER JACKETING ?

Any polymer can be modified with antibacterial agents. The manufacturing process does not affect neither the properties, nor the colour, nor the biocompatibility of the materials. The antibacterial activity is efficient during the whole lifetime of the cable or the assembly.

axon' CABLE & INTERCONNECT

AXON' CABLE SAS
ROUTE DE CHALONS EN CHAMPAGNE
51210 MONTMIRAIL - FRANCE
TEL. : +33 3 26 81 70 00
FAX : +33 3 26 81 28 83
sales@axon-cable.com
www.axon-cable.com

RELEASED NOVEMBER 2009 / B