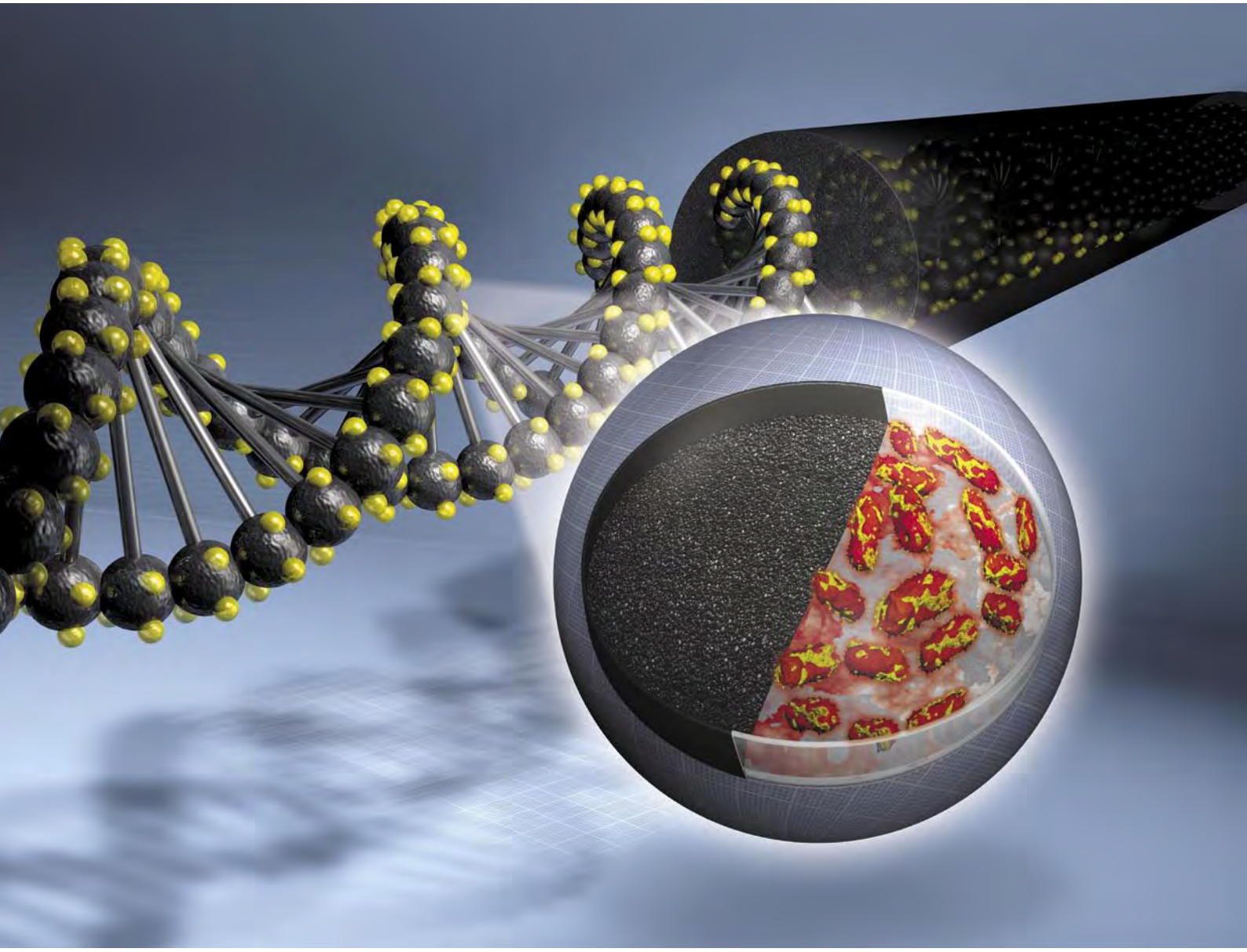
Armaflex®

Insulation Engineered With
ACTIVE ANTI-MICROBIAL PROTECTION



armacell
engineered foams

THE MAKERS OF Armaflex®

What are microbes?

Microbes are a wide group of different organisms which can cause illness and disease in humans. Whilst some microbes are in fact harmless and will have no impact on human health some can cause severe illness.

In particular mould spores in the air stream can aggravate respiratory problems.

The spread of microbe infection

Microscopic mould and bacteria are present on almost all surfaces. Given ample food and moisture, almost any surface can support the growth of vast mould and bacterial colonies.

If mould spores or bacteria are allowed to multiply on exposed surfaces the risk of human infection rises dramatically, especially in buildings which may restrict free circulation of contaminated, stale air.

Controlling the microbe population through a combination of passive and active approaches can reduce the overall risk and increase both the air quality and health of a building making this a major objective in sensitive school and hospital environments.

The impact of microbial infection

Microbial infections vary wildly in their impact. Many, especially those resulting from mould spores, are strongly associated with respiratory problems. Life threatening illness from building acquired infection is comparatively rare but relatively minor, energy depleting, infections are common.

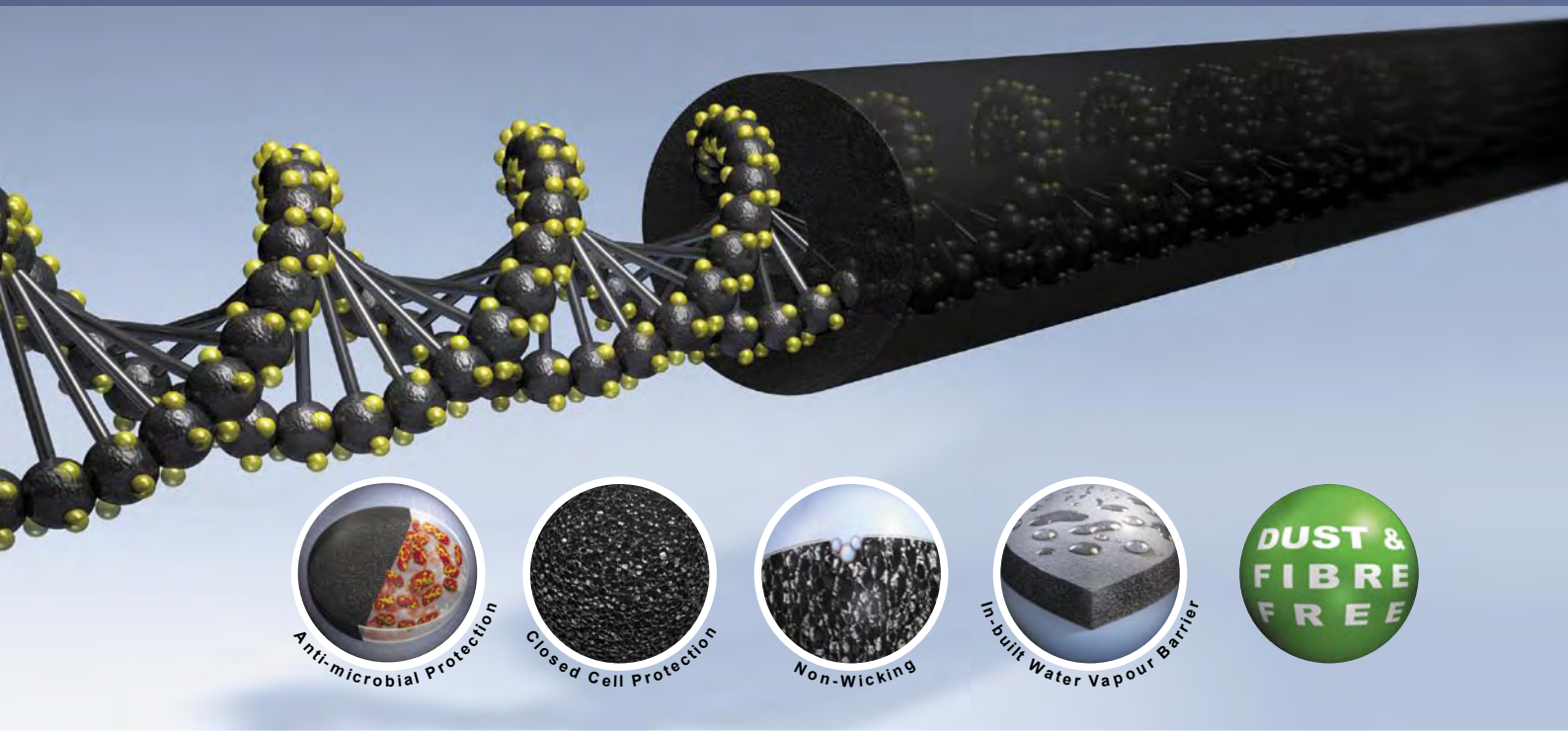
The difference between a healthy building and a sick one can be very significant.

Requirements to provide anti-microbial protection

In order to achieve a high level of anti-microbial protection an insulation material should display the following attributes:

1. **An effective water vapour barrier**
   Microbes can only grow in the presence of moisture. Preventing moisture from entering a surface reduces the possibility for microbe growth.
2. **A closed cell structure not prone to wicking**
   Unless a material is of a closed cell structure with an in-built water vapour barrier the possibility of “wicking” exists. The “wicking” process quickly saturates an insulation material with moisture increasing the microbial growth rate.
3. **Anti-microbial protection**
   Bacteria and mould will often look to grow within an insulation material underneath the surface covering. Anti-microbial additives which actively destroy mould and bacteria can offer an effective additional line of defence against the growth of microbes.
4. **Permanent active protection against microbes**
   Insulation may be in place for 10-15 years and any protection against microbes must be maintained throughout that lifespan.

Attributes of Armaflex Engineered for ANTI-MICROBIAL PROTECTION



Passive microbial protection with Armaflex

By preventing moisture ingress and providing no ready food source an Armaflex surface will not encourage the growth of microbes. Although living microbes can still survive they are denied the resources they require to prosper.

This is known as passive microbe protection and will improve the indoor air quality and reduce the overall infection risk.

Active microbial protection with Armaflex

Microban® anti-microbial protection is now built into Armaflex during the production process giving continuous, active protection against microbial growth. As this protection is added during the production process it is present throughout the whole of the Armaflex structure and not just the insulation surface.

Where there is a risk of microbial infection, Armaflex will actively work to reduce the risk of infection by cross contamination.

Armaflex has a number of inherent material properties which all help to reduce the overall risk of microbial infection:

In-built water vapour barrier
Closed cell Armaflex material has such a high built in resistance to water vapour ingress that the insulation effectively acts as if it is itself the water vapour barrier. No easily compromised external foil barrier is required.

Non Wicking
Since the insulation itself acts as a vapour barrier the “wicking” effect is not possible.
A small puncture in the surface results only in localised damage and not system wide failure reducing the risk of condensation, mould growth and corrosion.

In-built anti-microbial protection
An anti-microbial additive which actively inhibits certain types of mould and bacteria is present in all Armaflex, providing effective resistance against microbial growth - even if the surface is damaged or pierced.

Active anti-microbial protection 24/7
The anti-microbial agents embedded within Armaflex cannot be “used up” and will continue providing active anti-microbial protection for the entire life of the insulation.

Dust & Fibre free
Dusty and fibrous materials create an additional health hazard, often combining with mould spores and bacteria to aggravate respiratory conditions. Armaflex is entirely dust and fibre free, making it suitable for use in schools, offices and hospitals.

What is Microban® protection?

Microban®* technology is built-in protection for solid products, coatings and fibers. Microban anti-microbial protection gives Class O Armaflex products additional protection against harmful microbes such as, bacteria, mould and mildew.

*MICROBAN is a registered trademark of Microban Products Company.

» Armaflex Products with in-built anti-microbial protection

CLASS O ARMAFLEX TUBES

Closed cell, elastomeric, nitrile rubber pipe insulation material with a Class O fire rating and excellent thermal properties. Available in tubes and pre-slit tubes.

CLASS O ARMAFLEX 15M COILS

Continuous and coils of Class O Armaflex tube ideal for new pipework.

CLASS O ARMAFLEX SELFSEAL

Pre-slit Class O Armaflex tubes with a pair of self adhesive strips down the longitudinal seam. Specifically designed to reduce installation time on existing pipework.

CLASS O ARMAFLEX SHEETS

Closed cell, elastomeric, nitrile rubber insulation material with a Class O fire rating and excellent thermal properties. Ideal for use on ductwork, flanges and valve boxes. Also available in continuous and self adhesive formats.

CLASS O ARMAFLEX DUCT

Class O Armaflex Duct is Class O Armaflex sheet with a bright aluminium foil covering pre-applied.Class O Armaflex Duct is designed for rectangular and circular ductwork.

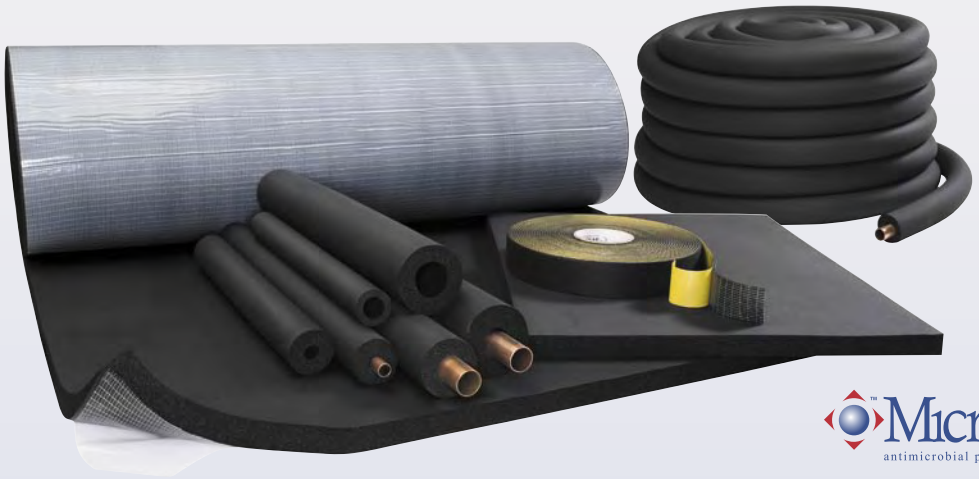
As a dust and fibre free, formaldehyde free product with an ODP of 0, Class O Armaflex Duct is suitable for use on ductwork in offices, schools and hospitals.

ARMAFLEX AC COILS

Long lengths of continuous Armaflex coils for air conditioning and domestic heating pipes. Achieves a Class O fire rating. Supplied in easy to carry boxes.

ARMAFLEX TUFFCOAT

Class O Armaflex tubes with a tough white covering pre-applied. Covering provides protection against UV exposure, impact damage and weathering.



Microban® antimicrobial product protection

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Armacell UK Limited
Mars Street Oldham, Lancs. OL9 6LY
Tel 0161 287 7100 · Fax 0161 633 2685
www.armacell.com · info.uk@armacell.com